S/M No.:CN001N-010

Service Manual

Color Television

CHASSIS : CN-001N

Model :

Model	Region
DTQ-14V1FCN/20V1FCN DTQ-14V5FCN/20V4FCN	U.S.A Canada
DTQ-14V1FSN/20V1FSN DTQ-14V5FSN/20V4FSN DTQ-14V3FSN/20V3FSN DTQ-14U1FSN/20U1FSN	Middle America (AC 110V)
DTQ-14V1FSPN/20V1FSPN DTQ-14V5FSPN/20V4FSPN DTQ-14U1FSPN/20U1FSPN	Mexico,Chile, Peru (AC 220V)


DTQ-14V1FCN


DTQ-14V3FCN


DTQ-20V4FCN


DTQ-14V5FCN


DTQ-14U1FSN

DAEWOO ELECTRONICS CO., LTD

http : //svc.dwe.co.kr

Dec. 2000

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APPENDIX (Appendix is provide only by internet [http://svc.dwe.co.kr])

PRODUCT SAFETY SERVICING GUIDELINES FOR AUDIO - VIDEO PRODUCTS

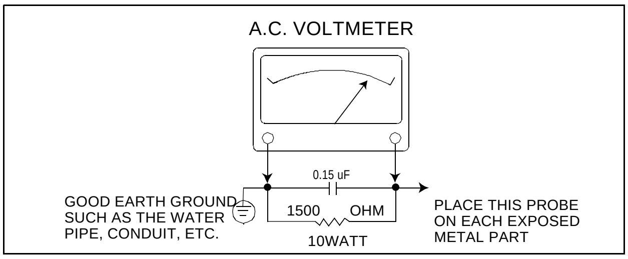
CAUTION : DO NOT ATTEMPT TO MODIFY THIS PRODUCT IN ANY WAY. NEVER PERFORM CUSTOMIZED INSTALLATIONS WITHOUT MANUFACTURER'S APPROVAL. UNAUTHORIZED MODIFICATIONS WILL NOT ONLY VOID THE WARRANTY, BUT MAY LEAD TO YOUR BEING LIABLE FOR ANT RESULTING PROPERTY DAMAGE OR USER INJURY.
SERVICE WORK SHOULD BE PERFORMED ONLY AFTER YOU ARE THOROUGHLY FAMILIAR WITH ALL OF THE FOLLOWING SAFETY CHECKS AND SERVICING GUIDELINES. TO DO OTHERWISE, INCREASES THE RISK OF POTENTIAL HAZARDS AND INJURY TO THE USER.
WHILE SERVICING, USE AN ISOLATION TRANSFORMER FOR PROTECTION FROM A.C. LINE SHOCK.

SAFETY CHECKS

AFTER THE ORIGINAL SERVICE PROBLEM HAS BEEN CORRECTED, A CHECK SHOULD BE MADE OF THE FOLLOWING:

SUBJECT:FIRE & SHOCK HAZARD

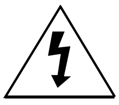
1. BE SURE THAT ALL COMPONENTS ARE POSITIONED IN SUCH A WAY AS TO AVOID POSSIBILITY OF ADJACENT COMPONENT SHORTS. THIS IS ESPECIALLY IMPORTANT ON THOSE MODULES WHICH ARE TRANSPORTED TO AND FROM THE REPAIR SHOP.
2. NEVER RELEASE A REPAIR UNLESS ALL PROTECTIVE DEVICES SUCH AS INSULATORS, BARRIERS, COVERS, SHIELDS, STRAIN RELIEFS, POWER SUPPLY CORDS, AND OTHER HARDWARE HAVE BEEN REINSTALLED PER ORIGINAL DESIGN. BE SURE, THAT THE SAFETY PURPOSE OF THE POLARIZED LINE PLUG HAS NOT BEEN DEFEATED.
3. SOLDERING MUST BE INSPECTED TO DISCOVER POSSIBLE COLD SOLDER JOINTS, SOLDER SPLASHES OF SHARP SOLDER POINTS. BE CERTAIN TO REMOVE ALL LOOSE FOREIGN PARTICLES.
4. CHECK FOR PHYSICAL EVIDENCE OF DAMAGE OR DETERIORATION TO PARTS AND COMPONENTS, FOR FRAYED LEADS, DAMAGED INSULATION (INCLUDING A.C. CORD), AND REPLACE IF NECESSARY. FOLLOW ORIGINAL LAYOUT, LEAD LENGTH AND DRESS.
5. NO LEAD OR COMPONENT SHOULD TOUCH A RECEIVING TUBE OR A RESISTOR RATED AT 1 WATT OR MORE. LEAD TENSION AROUND PROTRUDING METAL SURFACES MUST BE AVOIDED.
6. ALL CRITICAL COMPONENTS SUCH AS FUSES, FLAMEPROOF RESISTOR, CAPACITORS, ETC. MUST BE REPLACED WITH EXACT FACTORY TYPES. DO NOT USE REPLACEMENT COMPONENTS OTHER THAN THOSE SPECIFIED OR MAKE UNRECOMMENDED CIRCUIT MODIFICATIONS.
7. AFTER RE-ASSEMBLY OF THE STE ALWAYS PERFORM AN A.C. LEAKAGE TEST ON ALL EXPOSED METALLIC PARTS OF THE CABINET. (THE CHANNEL SELECTOR KNOB, ANTENNA TERMINALS, HANDLE AND SCREWS) TO BE SURE THE SET IS SAFE TO OPERATE WITHOUT DANGER OF ELECTRICAL SHOCK. DO NOT USE A LINE ISOLATION TRANSFORMER DURING THIS TEST USE AN A.C. VOLTMETER, HAVING 5000 OHMS PER VOLT OR MORE SENSITIVITY, IN THE FOLLOWING MANNER : CONNECT A 1500 OHM 10 WATT RESISTOR, PARALLELED BY A .15 MFD. 150V A.C. TYPE CAPACITOR BETWEEN A KNOWN GOOD EARTH GROUND (WATER POPE, CONDUIT, ETC.) AND THE EXPOSED METALLIC PARTS, ONE AT A TIME. MEASURE THE A.C. VOLTAGE ACROSS THE COMBINATION OF 1500 OHM RESISTOR AND .15 MFD CAPACITOR. REVERSE THE A.C. PLUG AND REPEAT A.C. VOLTAGE MEASUREMENTS FOR EACH EXPOSED METALLIC PART. VOLTAGE MEASURED MUST NOT EXCEED .75 VOLTS R.M.S THIS CORRESPONDS TO 0.5 MILLIAMP A.C. NAY VALUE EXCEEDING THIS LIMIT CONSTITUTES A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED IMMEDIATELY.



SUBJECT : GRAPHIC SYMBOLS



THE LIGHTNING FLASH WITH ARROWHEAD SYMBOL, WITHIN AN EQUILATERAL TRIANGLE, IS INTENDED TO ALERT THE SERVICE PERSONNEL TO THE PRESENCE OF UNINSULATED "DANGEROUS VOLTAGE" THAT MAY BE OF SUFFICIENT MAGNITUDE TO CONSTITUTE A RISK OF ELECTRIC SHOCK.



THE EXCLAMATION POINT WITHIN AN EQUILATERAL TRIANGLE IS INTENDED TO ALERT THE SERVICE PERSONNEL TO THE PRESENCE OF IMPORTANT SAFETY INFORMATION ON SERVICE LITERATURE.

SUBJECT : X-RADIATION

1. BE SURE PROCEDURES AND INSTRUCTIONS TO ALL SERVICE PERSONNEL COVER THE SUBJECT OF X-RADIATION. THE ONLY POTENTIAL SOURCE OF X-RAYS IN CURRENT T.V. RECEIVERS IS THE PICTURE TUBE. HOWEVER, THIS TUBE DOES NOT EMIT X-RAYS WHEN THE HIGH VOLTAGE IS AT THE FACTORY SPECIFIED LEVEL. THE PROPER VALUE IS GIVEN IN THE APPLICABLE SCHEMATIC. OPERATION AT HIGHER VOLTAGES MAY CAUSE A FAILURE OF THE PICTURE TUBE OR HIGH VOLTAGE SUPPLY AND UNDER CERTAIN CIRCUMSTANCES, AMY PRODUCE RADIATION IN EXCESS OF DESIRABLE LEVELS.
2. ONLY FACTORY SPECIFIED C.R.T ANODE CONNECTORS MUST BE USED. DEGAUSSING SHIELDS ALSO SERVE AS X-RAY SHIELD IN COLOR SETS. ALWAYS RE-INSTALL THEM.
3. IT IS ESSENTIAL THAT SERVICE PERSONNEL HAVE AVAILABLE AN ACCURATE AND RELIABLE HIGH VOLTAGE METER. THE CALIBRATION OF THE METER SHOULD BE CHECKED PERIODICALLY AGAINST A REFERENCE STANDARD. SUCH AS THE ONE AVAILABLE AT YOUR DISTRIBUTOR.
4. WHEN THE HIGH VOLTAGE CIRCUITRY IS OPERATING PROPERLY THERE IS NO POSSIBILITY OF AN X-RADIATION PROBLEM. EVERY TIME A COLOR CHASSIS IS SERVICED, THE BRIGHTNESS SHOULD BE RUN UP AND DOWN WHILE MONITORING THE HIGH VOLTAGE WITH A METER TO BE CERTAIN THAT THE HIGH VOLTAGE DOES NOT EXCEED THE SPECIFIED VALUE AND THAT IT IS REGULATING CORRECTLY. WE SUGGEST THAT YOU AND YOUR SERVICE ORGANIZATION REVIEW TEST PROCEDURES SO THAT VOLTAGE REGULATION IS ALWAYS CHECKED AS A STANDARD SERVICING PROCEDURE, AND THAT THE HIGH VOLTAGE READING BE RECORDED ON EACH CUSTOMER S INVOICE.
5. WHEN TROUBLESHOOTING AND MAKING TEST MEASUREMENTS IN A PRODUCT WITH A PROBLEM OF EXCESSIVE HIGH VOLTAGE, AVOID BEING UNNECESSARILY CLOSE TO THE PICTURE TUBE AND THE HIGH VOLTAGE SUPPLY. DO NOT OPERATE THE PRODUCT LONGER THAN IS NECESSARY TO LOCATE THE CAUSE OF EXCESSIVE VOLTAGE.
6. REFER TO HV, B+ AND SHUTDOWN ADJUSTMENT PROCEDURES DESCRIBED IN THE APPROPRIATE SCHEMATIC AND DIAGRAMS (WHERE USED).

SUBJECT : IMPLOSION

1. ALL DIRECT VIEWED PICTURE TUBES ARE EQUIPPED WITH AN INTEGRA IMPLOSION PROTECTION SYSTEM. BUT CARE SHOULD BE TAKEN TO AVOID DAMAGE DURING INSTALLATION. AVOID SCRATCHING THE TUBE. OF SCRATCHED REPLACE IT.
2. USE ONLY RECOMMENDED FACTORY REPLACEMENT TUBES.

SUBJECT : TIPS ON PROPER INSTALLATION

1. NEVER INSTALL ANY PRODUCT IN A CLOSED-IN RECESS, CUBBYHOLE OR CLOSELY FITTING SHELF SPACE, OVER OR CLOSE TO HEAT DUCT, OR IN THE PATH OF HEATED AIR FLOW.
2. AVOID CONDITIONS OF HIGH HUMIDITY SUCH AS: OUTDOOR PATIO INSTALLATIONS WHERE DEW IS A FACTOR, NEAR STEAM RADIATORS WHERE STEAM LEAKAGE IS A FACTOR, ETC.
3. AVOID PLACEMENT WHERE DRAPERIES MAY OBSTRUCT REAR VENTING. THE CUSTOMER SHOULD ALSO AVOID THE USE OF DECORATIVE SCARVES OR OTHER COVERINGS WHICH MIGHT OBSTRUCT VENTILATION.
4. WALL AND SHELF MOUNTED INSTALLATIONS USING A COMMERCIAL MOUNTING KIT, MUST FOLLOW THE FACTORY APPROVED MOUNTING INSTRUCTIONS. A PRODUCT MOUNTED TO A SHELF OR PLATFORM MUST RETAIN ITS ORIGINAL FEET (OR THE EQUIVALENT THICKNESS IN SPACERS)TO PROVIDE ADEQUATE AIR FLOW ACROSS THE BOTTOM, BOLTS OR SCREWS USED FOR FASTENERS MUST NOT TOUCH ANY PARTS OR WIRING. PERFORM LEAKAGE TEST ON CUSTOMIZED INSTALLATIONS.
5. CAUTION CUSTOMERS AGAINST THE MOUNTING OF A PRODUCT ON SLOPING SHELF OR A TILTED POSITION, UNLESS THE PRODUCT IS PROPERLY SECURED.
6. A PRODUCT ON A ROLL-ABOUT CART SHOULD BE STABLE ON ITS MOUNTING TO THE CART. CAUTION THE CUSTOMER ON THE HAZARDS OF TRYING TO ROLL A CART WITH SMALL CASTERS ACROSS THRESHOLDS OR DEEP PILE CARPETS.
7. CAUTION CUSTOMERS AGAINST THE USE OF A CART OR STAND WHICH HAS NOT BEEN LISTED BY UNDERWRITERS LABORATORIES. INC. FOR USE WITH THEIR SPECIFIC MODEL OF TELEVISION RECEIVER OR GENERICALLY APPROVED FOR USE WITH T.V.S OF THE SAME OR LARGER SCREEN SIZE.
8. CAUTION CUSTOMERS AGAINST THE USE OF EXTENSION CORDS, EXPLAIN THAT A FOREST OF EXTENSIONS SPROUTING FROM A SINGLE OUTLET CAN LEAD TO DISASTROUS CONSEQUENCES TO HOME AND FAMILY.

PRODUCT SAFETY SERVICING GUIDELINES FOR COLOR TELEVISION RECEIVERS

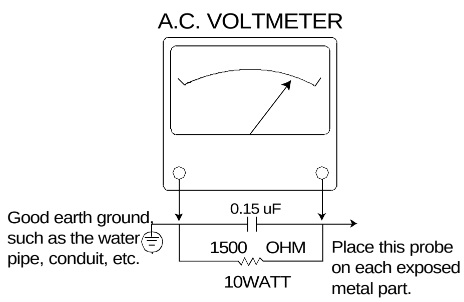
CAUTION : Do not attempt to modify this product in any way. Unauthorized modifications will not only void the warranty, but may lead to your being liable for any resulting property damage or user injury.
Service work should be performed only after you are thoroughly familiar with all of the following safety checks and servicing guidelines. To do otherwise, increases the risk of potential hazards and injury to the user.

SAFETY CHECKS

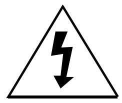
After the original service problem has been corrected, a check should be made of the following:

SUBJECT : FIRE & SHOCK HAZARD

1. Be sure that all components are positioned in such a way as to avoid possibility of adjacent component shorts. This is especially important on those chassis which are transported to and from the repair shop.
2. Never release a repair unless all protective devices such as insulators, barriers, covers, shields, strain reliefs, and other hardware have been reinstalled per original design.
3. Soldering must be inspected to discover possible cold solder joints, frayed leads, damaged insulation (including A.C. cord), solder splashes or sharp solder points. Be certain to remove all loose foreign particals.
4. Check for physical evidence of damage or deterioration to parts and components, and replace if necessary follow original layout, lead length and dress.
5. No leads or components should touch a receiving tube or a resistor rated at 1 watt or more. Lead tension around protruding metal surfaces must be avoided.
6. All critical components such as fuses, flameproof resistors, capacitors, etc. must be replaced with exact factory types. Do not use replacement components other than those specified or make unrecommended circuit modifications.
7. After re-assembly of the set always perform an A.C. leakage test on all exposed metallic parts of the cabinet, (the channel selector knob, antenna terminals, handle and screws) to be sure the set is safe to operate without danger of electrical shock. Do not use a line isolation transformer during this test. Use an A.C. voltmeter, having 5000 ohms per volt or more sensitivity, in the following manner : connect a 1500 ohm 10 watt resistor, paralleled by a 15 mfd. 150V A.C. type capacitor between a known good earth ground (9water pipe, conduit, etc.) and the exposed metallic parts, one at a time. Measure the A.C. voltage across the combination of 1500 ohm resistor and 0.15 MFD capacitor. Reverse the A.C. plug and repeat A.C. voltage measurements for each exposed metallic part. Voltage measured must not exceed 0.75 volts R.M.S. This corresponds to 0.5 milliamp A.C. Any value exceeding this limit constitutes a potential shock hazard and must be corrected immediately.



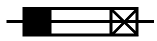
GRAPHIC SYMBOLS :



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the service personnel to the presence of uninsulated "dangerous voltage" that may be of sufficienty magnitude to constitute a risk of electric shock.



The exclamation point within an equilateral triangle is intended to alert the service personnel to the presence of important safety information in service literature.



Fuse symbol is printed on pcb adjacent to the fuse, with "RISK OF FIRE REPLACE FUSE AS MARKED". The symbol is explained in the service manual with the following wording or equivalent.

"**CAUTION :** FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH SAME TYPE (4A, 125V)" and "**ATTENTION**: AFIN D'ASSU UNE PROTECTION PERMANENTE CONTRE LES RISQUES D'INCENDIE, REMPLACER UNIQUEMENT PAR UN FUSIBLE DE MEME TYPE ET DE "4A, 125V".

SUBJECT : X-RADIATION

1. Be sure procedures and instructions to all service personnel cover the subject of X-rays in current T.V. receivers is the picture tube. However, this tube does not emit X-rays when the high voltage is at the factory specified level. The proper value is given in the applicable schematic. Operation at higher voltages may cause a failure of the picture tube or high voltage supply and, under certain circumstances, may produce radiation in excess of desirable levels.
2. Only factory specified C.R.T. anode connectors must be used. Degaussing shields also serve as X-ray shield in color sets. Always re-install them.
3. It is essential that the serviceman has available an accurate and reliable high voltage meter. The calibration of the meter should be checked perio - dically against a reference standard. Such as the one available at your distributor.
4. When the high voltage circuitry is operating properly there is no possibility of an X-radiation problem. Every time a color chassis is serviced, the brightness should be run up and down while monitoring the high voltage with a meter to be certain that the high voltage does not exceed the specified value and that it is regulating correctly. We suggest that you and your service organization review test procedures so that voltage regulation is always checked as a standard servicing procedure. And that the high voltage reading be recorded on each customer's invoice.
5. When troubleshooting and making test measurements in a receiver with a problem of excessive high voltage, avoid being unnecessarily close to the picture tub eand the high voltage compartment.
   Do not operate the chassis longer than is necessary to locate the cause of excessive voltage.
6. Refer to HV, B+and Shutdown adjustment procedures described in the appropriate schematic and diagrams(where used).

SUBJECT : IMPLOSION

1. All direct viewed picture tubes are equipped with an integral implosion protection system, but care should be taken to avoid damage during installation. Avoid scratching the tube. If scratched, replace it.
2. Use only recommended factory replacement tubes.

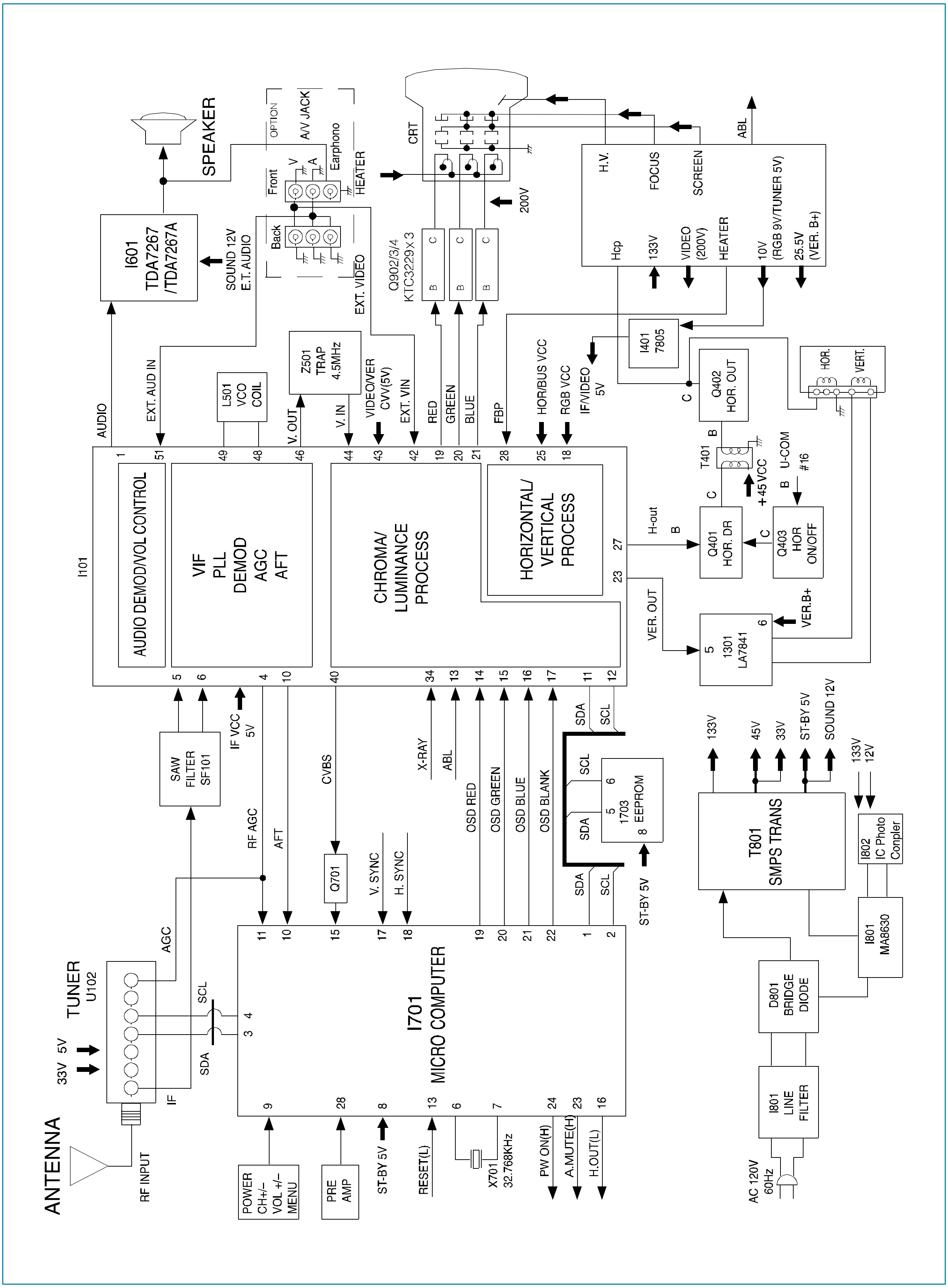
SUBJECT : TIPS ON PROPER INSTALLATION

1. Never install any receiver in closed-in recess, cubbyhole or closely fitting shelf space over, or close to heat duct, or in the path of heated air flow.
2. Avoid conditions of high humidity such as : Outdoor patio installations where dew is a factor. Near steam radiators where steam leakage is a factor, etc.
3. Avoid placement where draperies may obstruct rear venting. The customer should also avoid the use of decorative scarves or other coverings which might obstruct ventilation.
4. Wall and shelf mounted installations using a commercial mounting kit, must follow the factory approved mounting instructions. A receiver mounted to a shelf or platform must retain its original feet(or the equivalent thickness in spacers) to provide adequate are flow across the bottom, bolts or screws used for fasteners must not touch and parts or wiring. Perform leakage test on customized installations.
5. Caution customers against the mounting of a receiver on sloping shelf or a tilted position, unless the receiver is properly secured.
6. A receiver on a roll-about cart should be stable on its mounting to the cart. Caution the customer on the hazards of trying to roll a cart with small casters across thresholds or deep pile carpets.
7. Caution customers against the use of a cart or stand which has not been listed by underwriters laboratories, inc. For use with their specific model of television receiver or generically approved for use with T.V.'s of the same or larger screen size.

SPECIFICATIONS

MODEL / ITEMS	DTQ-14/20V1FCN DTQ-14V5/20V4FCN DTQ-14/20V1FSN DTQ-14V5/20V4FSN DTQ-14/20V3FSN	DTQ-14/20U1FSN	DTQ-14/20U1FSPN	DTQ-14/20V1FSPN DTQ-14V5/20V4FSPN	REMARKS
TV STANDARD	NTSC-M				
POWER INPUT	AC 120V 60 Hz		AC 220V 50/60 Hz		
POWER CONSUMPTION	14 = 55W 20 = 68W				
TUNING SYSTEM	Frequency Synthesizer (FS) Tuning System				
TUNING RANGES	VHF : 2 ~ 13 (12) UHF : 14 ~ 69 (56) CATV : 1 ~ 125 (125)				
SOUND OUTPUT	1.3 W	1.3 W+1.3 W		1.3 W	
SPEAKER	3 W 8 ohm				
ANTENNA INPUT IMPEDANCE	75 ohm Unbalanced				
AUXILIARY INPUT TERMINAL	Front : Video, Audio Rear : Video, Audio				
INTERMEDIATE FREQUENCIES	Picture IF Carrier Frequency : 45.75 MHz Sound IF Carrier Frequency : 41.25 MHz Color Sub-Carrier Frequency : 42.17 MHz				
REMOTE CONTROL	R-43A01				
SPECIAL FUNCTIONS	3-Language OSD With CAPTION Wake-up On/Off Time Sleep Timer Power Restore				

BLOCK DIAGRAM



ALIGNMENT INSTRUCTIONS

1. SERVICE MODE ADJUSTMENTS

Follow the steps below whenever service adjustment is required. See Table- A and Table- B to determine if service adjustments are required.

1) How to enter the service mode using the user remote control.

- Turn the set on.
- Direct the remote control to the reception window of TV.
- Push buttons of remote control in sequence as follows.

  1 ® **MUTE** ® **DISPLAY** ® **MUTE**
- Then, the screen will appear as follows.

```
S2    SCRN
S5    IFC
S6    GEO
S8    W/B
S9    DP
S12   FACT
S7    PTRN   NORMAL
```

- Using the channel up or channel down button, select the item you wish to adjust. (The color of selected item turns into the red.)
- Press the volume up or down button to enter in the service mode you wish to adjust.

2) How to memorize the adjusted values in the service mode.

- Must press **DISPLAY** button the state which the screen is displaying each of service menus after all adjustments are completed each of all service menu.

Table-A : Adjust the values of service mode when a part is replaced.

PART REPLACED	ADJUSTMENT		NOTES
	NECESSARY	UNNECESSARY	
I701 (U-COM)		O	Data is stored in I703.
I101 (MAIN)		O	
I703 (EEPROM)	O		Initial setting values are written from I701. Adjusting Items S5 RFAGCD S6 H.PHASE/V.POSI/V.SIZE S8 RD/BD/RB/GB/BB S9 Subbrightness
CRT	O		Adjust items related to picture tube only.(White Balance adjustment)

Table-B

MODE	ADJUSTMENT ITEMS	DATA		REMARKS
		INITIAL	RANGE	
S2	Screen Adjustment	-	-	
S5	Auto RF AGC	-	-	
	Video Level (VIDEOL)	7	0 ~ 7	Must be set to 7
	RF AGC Delay (RFAGCD)	*	0 ~ 63	Align RF AGC threshold
	FM Level (FM.LEV)	8	0 ~ 31	Must be set to 20
	AGC Point	3.75	-	Select AGC reference voltage
	A/D VALUE	-	-	
S6	Horizontal Phase(H.PHASE)	*	0 ~ 31	Align sync to flyback pulse, using internal cross pattern(S7)
	Vertical Position (V.POSI)	*	0 ~ 63	Align vertical DC bias, using internal cross pattern(S7)
	Vertical Size (V.SIZE)	*	0 ~ 127	Align vertical amplitude, using internal cross pattern(S7)
	NO SD POWER OFF	YES	-	Automatically turn off in 15min for no received signal.
	Vertical S-Correction (V SC)	0	0 ~ 31	Must be set to 6
	Vertical Linearity (V LIN)	20	0 ~ 31	Must be set to 16
S7	Internal Black	-	-	Display internal BLACK pattern
	Internal 100% White	-	-	Display internal 100% WHITE
	Internal 60% White	-	-	Display internal 60% WHITE
	Internal Cross Pattern	-	-	Display internal CROSS pattern
S8	Red Drive (RD)	*	0 ~ 127	Align RED OUT AC level
	Green Drive (GD)	10	0 ~ 15	Must be set to 10
	Blue Drive (BD)	*	0 ~ 127	Align BLUE OUT AC level
	Red Bias (RB)	*	0 ~ 255	Align RED OUT DC level
	Green Bias (GB)	*	0 ~ 255	Align GREEN OUT DC level
	Blue Bias (BB)	*	0 ~ 255	Align BLUE OUT DC level
S9	Subbrightness	*	0 ~ 127	Align common RGB DC level
	Contrast	10	0 ~ 27	
	Tint	27	0 ~ 27	
	Color	15	0 ~ 27	
S12	Forwarding Mode	-		Factory Initialization

* indicates the items with different settings each of sets

2. ASSEMBLY ADJUSTMENTS

1) SCREEN ADJUSTMENT (S2)

- Enter the service mode and select service adjustment S2.
- You cna see the one horizontal line on the screen.
- Adjust the Screen Control Volume (located on FBT) so that the horizontal line onscreen may be disappeared.
- Press the volume up or down button to exit in the screen adjustment mode.

NOTE

IN THE SCREEN ADJUSTMENT MODE, DONT PRESS OTHER BUTTONS EXCEPT VOLUME UP OR DOWN BUTTON.

2) FOCUS ADJUSTMENT

- Turn in a local station and adjust the Focus Control knob (located on FBT) for best picture details at high light condition.

3) RF AGC DELAY ADJUSTMENT (S5)

- Receive a good local channel.
- Enter the service mode and select service adjustment S5.
- You can see the OSD as shown in below.

```
IF        CONTROL
AUTO      RFAGC      START
  VIDEOL             7
  RFAGCD             10
  FM.LEV             8
  AGC POINT          3.75
  A/D VALUE : 8DH

ã å  MOVE  ç ¢  ADJUST  RECALL : SET
```

- Select RFAGCD item, press the volume up or down button until noise or beat in picture disappears.
- Press the DISPLAY button to memorize the data.

4) GEOMETRIC ADJUSTMENTS (S6)

- Enter the service mode and select service adjustment S7.
- Whenever you select the "S7" using the volume up or down button, the screen is changing like this.

NORMAL → BLACK → WHITE100 → WHITE60 → CROSS (→ back to NORMAL)

- Using the volume up or down button, select internal cross pattern.
- Select service adjustment S6
- You can see the OSD as shown in below.

```
GEOMETRY
H.  PHASE  20
V.  POSI   29
V.  SIZE   70
NO SD POWER OFF YES
V   SC     0
V   LIN    20

ã å  MOVE  ç ¢  ADJUST  RECALL : SET
```

4-1. Horizontal Position Adjustment

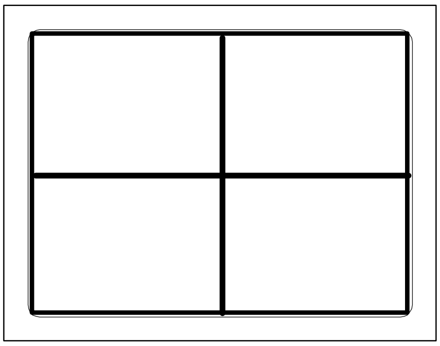
- Select H.PHASE item, adjust H.PHASE data value to obtain proper horizontal centering of the internal cross pattern at the left and right of the screen.

4-2. Vertical Position Adjustment

- Select V.POSI item, adjust V.POSI data value to center the raster properly on thescreen.

4-3. Vertical Size Adjustment

- Select "V.SIZE" item, adjust "V.SIZE" data value to proper vertical size as follows.



5) WHITE BALANCE ADJUSTMENT(S8)

- Receive a good local channel.
- Enter the service mode and select service adjustment S8.
- You can see the OSD as shown in below.

RD	58
GD	10
BD	65
RB	105
GB	160
BB	100

ã å MOVE ç ¢ ADJUST RECALL : SET

- Using volume up or volume down, adjust service adjustment data of RD/GD/BD and RB/GB/BB until a good gray scale with normal whites is obtained.ALIGNMENT INSTRUCTIONS
- Press the DISPLAY button to memorize the data.

6) DIGITAL PRESET(D.P) ADJUSTMENTS(S9)

SUBBRIGHTNESS ADJUSTMENT

- Receive a good local channel.
- Enter the service mode and select service adjustment S9.
- You can see the OSD as shoown in below.

D.P.

SUB BRIGHTNESS	64
CONTRAST	10
TINT	27
COLOR	15

ã å MOVE ç ¢ ADJUST RECALL : SET

- Select Subbrightness item, adjust Subbrightness data value to obtain normal brightness level.
- Press the DISPLAY button to memorize the data.

CONTRAST
- Fixed value = 27

TINT
- Fixed value = 32

COLOR
- Fixed value = 20

7) FACTORY OUTGOING MODE (S12 : FACT)
- If you select the S12, then the set becomes factory outgoing status.
- You can see the OSD "outgoing OK"

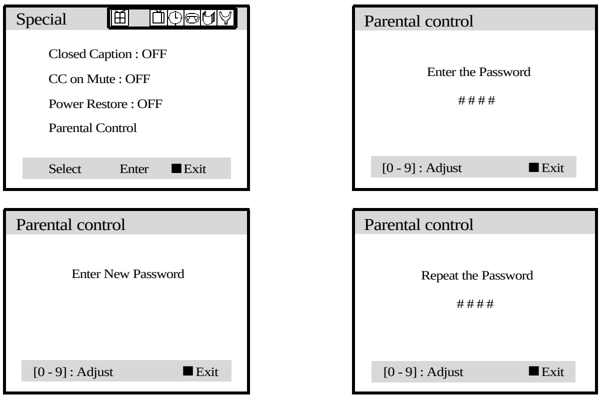
3. PARENTAL CONTROL PASSWORD SETTINGS

If user forget Parental Control Password as follows.

1) CHANGE THE PASSWORD.

- Turn the set on.
- Direct the remote control to the reception window of your TV/VCR
- Using the MENU buttons, select the Special menu.
- Using the the channel up (ã) or down (å) duttons, select prental control.
- Using the volume up (¢), set the password Menu.
- Push buttons of remote control in sequence as follows.

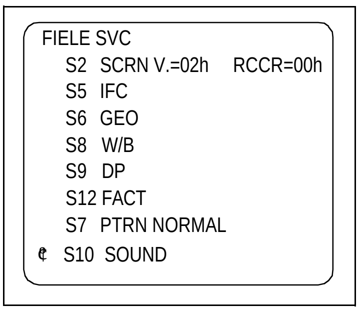
  2 → 2 → 1 → 1
- Parental control password is reset.
- Using the 0~9 buttons, enter the password.
- Using the 0~9 buttons, repeat the password.



2) RESET THE PASSWORD

- Turn the set on.
- Direct the remote control to the reception window of your TV/VCR.
- Push buttons of remote control in sequence as follows.

  1 ›MUTE ›INFO ›MUTE
- Then, the screen will appear as follows.



- Using the channel up (ã) or down (å) buttons, select S12 FACT.

  Press the volume up (¢) button, the set becomes factory outgoing status.
- Parental control password is reset.
- Using the MENU buttons, select the parental control menu, set the new password.

VOLTAGE CHART

LOC	PIN	MODE	
		ON	OFF
I101	1	2.37	0
	2	2.3	0
	3	2.63	0
	4	2.22	0.49
	5	2.88	0
	6	2.88	0
	70		0
	8	4.92	0.57
	9	2.25	0
	10	2.29	0.28
	11	4.9	4.89
	12	4.85	4.84
	13	3.94	0
	14	1.5	0
	15	1.53	0
	16	1.53	0
	17	0	0
	18	8.04	0
	19	2.52	0
	20	2.63	0
	21	2.59	0
	22	0.2	0
	23	0.22	0
	24	2.56	0
	25	5.14	4.23
	26	2.65	2.2
	27	0.69	0.16
	28	0.81	1.37
	29	1.71	1.4
	30	0	0
	31	NC	NC
	32	2.79	0.31
	33	0	0
	34	0	0
	35	0.36	0
	36	3.41	0
	37	0.55	0
	38	2.81	0.35
	39	3.27	0
	40	0	0
	41	0	0
	42	2.52	0
	43	4.95	0.5
	44	2.73	0
	45	1.94	0
	46	2.36	0
	47	2.44	0
	48	4.25	0.51
	49	4.25	0.51
	50	3.56	0
	51	3.04	0.65
	52	1.98	0.32
	53	2.39	0
	54	3.11	0.3

LOC	PIN	MODE	
		ON	OFF
I301	1	0	0
	2	13.35	0
	3	26.34	3.63
	4	2.22	0
	5	2.22	0
	6	25.85	0
	7	2.33	0

LOC	PIN	MODE	
		ON	OFF
I401	1	7.62	0
	20		0
	3	5.05	0.6

LOC	PIN	MODE	
		ON	OFF
I601	1	14.55	10.92
(MONO ONLY)	2	7.56	5.52
	3	7.81	5.87
	4	0.87	0.82
	50		0
	60		0
	70		0
	80		0
	90		0
	10	0	0
	11	0	0
	12	0	0
	13	0	0
	14	0	0
	15	0	0
	16	0	0

LOC	PIN	MODE	
		ON	OFF
I701	1	4.9	4.89
	2	4.81	4.8
	3	5.04	4.99
	4	5.04	4.99
	50		0
	6	1.9	1.9
	7	2.68	2.66
	8	4.97	4.92
	9	5.04	4.99
	10	0	0
	11	2.22	0.49
	12	0	4.89
	13	4.95	4.89
	14	3.4	3.37
	15	2.69	2.47
	16	0	3.52
	17	4.65	4.99
	18	4.14	4.99
	19	0	0
	20	0	0
	21	0	0
	22	0	0
	23	NC	NC
	24	NC	NC
	25	0	0

LOC	PIN	MODE	
		ON	OFF
I701	26	0	0
	27	3.81	3.46
	28	4.97	4.92
	29	4.77	4.71
	30	5.04	4.99
	31	4.08	0
	32	5.04	4.99
	33	0	0
	34	5.04	4.99
	35	0	0
	36	0	0

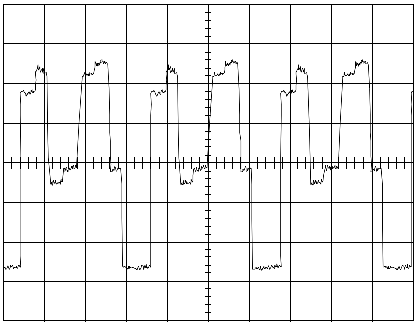
LOC	PIN	MODE	
		ON	OF
I703	1	0	0
	20		0
	30		0
	40		0
	5	4.89	4.86
	6	4.86	4.83
	70		0
	8	5.04	4.99

LOC	PIN	MODE	
		ON	OF
I801	1	6.72	4.12
	2	163.8	173.53
	3	14.4	11.02
	4	4.53	3.21
	5	2.35	3.91
	6	7.55	3.45
	7	5.04	4.55

LOC	PIN	MODE		LOC	PIN	MODE	
		ON	OFF			ON	OFF
Q201	C	5.02	0	Q703	C	5.02	5
	E	3.32	3.28		E	0	0
	B	2.49	2.48		B0		0
Q401	C	38.6	42.28	Q704	C	4.93	4.9
	E	0	0		E	4.95	4.92
	B0		0		B	4.32	4.29
Q402	C	132	0	Q707	C	5.02	4.2
	E	0	0		E	0.21	5
	B0		0		B	0.07	4.9
Q403	C	0.59	0	Q760	C	2.89	0
	E	0	0		E	0	0
	B	0	0.66		B	0	0.68
Q404	C	10.1	0	Q804	C	0.4	0
	E	0	0		E	133.1	119.38
	B0		0		B	132.6	118.96
Q602	C	9.71	0	Q805	C	12.31	5
	E	1.69	0		E	5.02	10.88
	B	2.31	0		B	5.6	5.59
Q701	C	5.02	4.99	Q851	C	4.01	0
	E	0	0		E	0	0
	B0		0		B	0	0.68
Q702	C	5.02	5				
	E	0	0				
	B0		0				

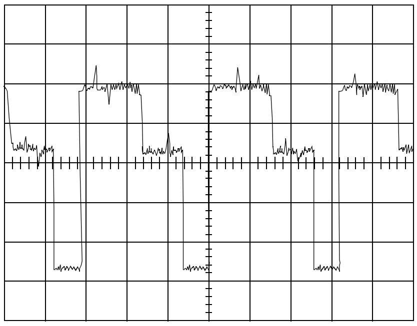
WAVEFORMS

(1) I101 PIN 19



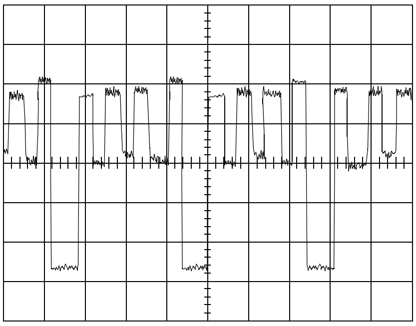
V: 1V/div
H: 20μs/div

(2) I101 PIN 20



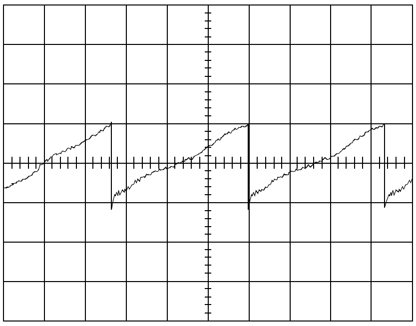
V: 1V/div
H: 20μs/div

(3) I101 PIN 21



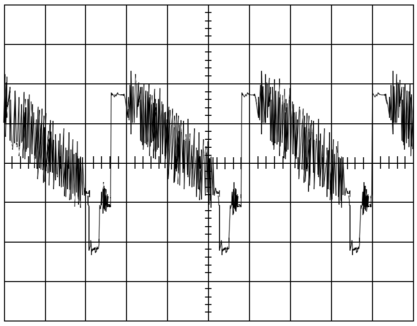
V: 1V/div
H: 20μs/div

(4) I101 PIN 23



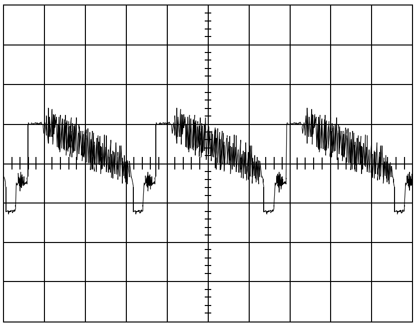
V: 500mV/div
H: 5ms/div

(5) I101 PIN 40



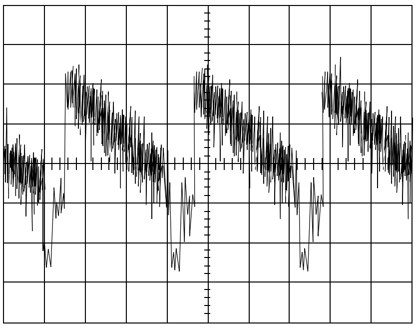
V: 500mV/div
H: 20μs/div

(5) I101 PIN 44



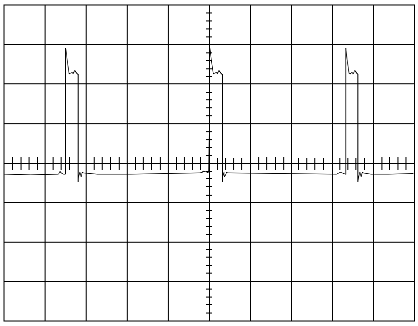
V: 500mV/div
H: 20μs/div

(7) I101 PIN 46



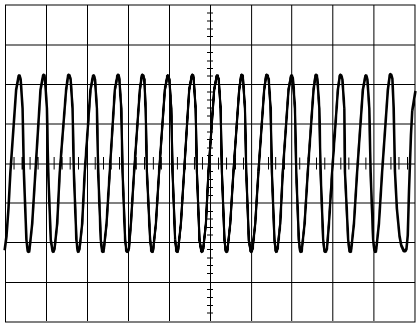
V: 500mV/div
H: 20μs/div

(8) I301 PIN7



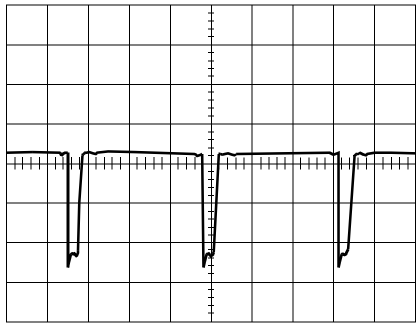
V: 10V/div
H: 5ms/div

(9) I701 PIN 7



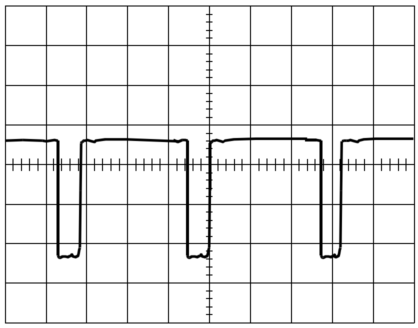
V: 1V/div
H: 50μs/div

(10) I701 PIN 17



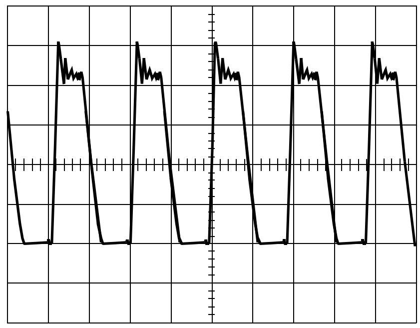
V: 2V/div
H: 5ms/div

1) I701 PIN 18



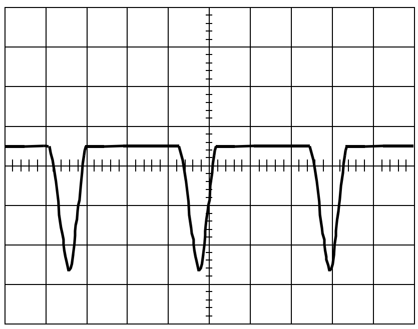
V:20V/div
H:20μs/div

(12) I801 PIN 2



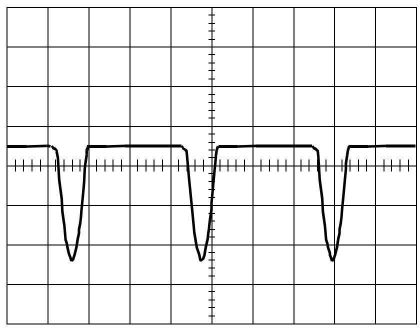
V: 100V/div
H: 10μs/div

(13) T402 PIN 25.5V



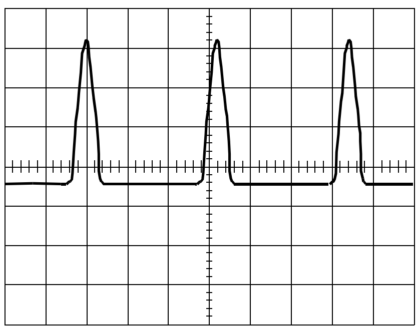
V:100V/div
H: 20μs/div

(14) T402 PIN 10.5V



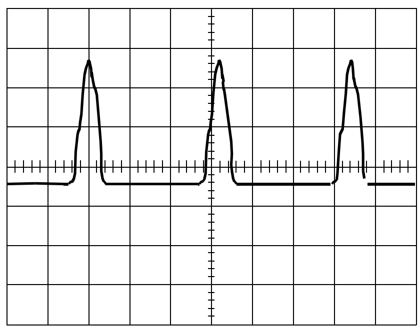
V:50V/div
H:20μs/div

(15) T402 PIN HEATER



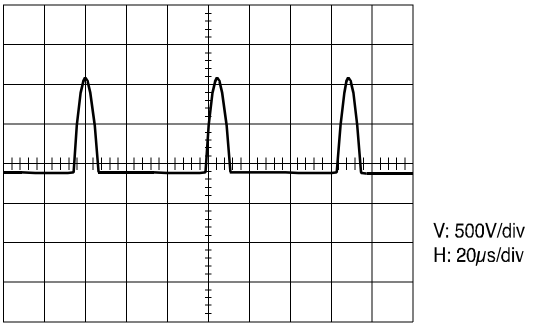
V: 10v/div
H: 20μs/div

(16) T402 PIN 200V

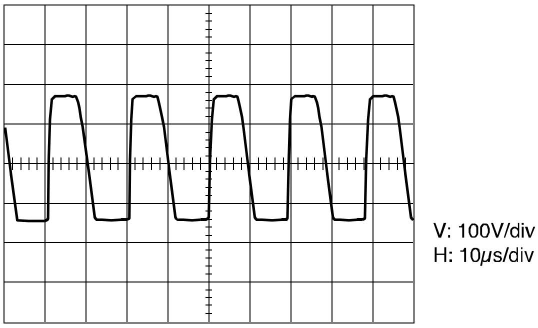


V : 100V/div
H: 20μs/div

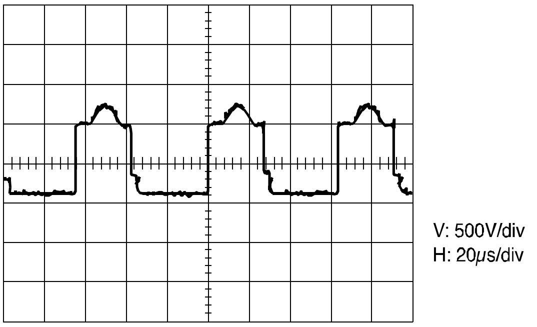
(17) T401 PIN H.V



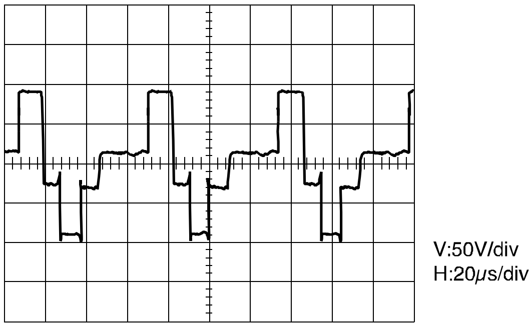
(18) T801 PIN 133V



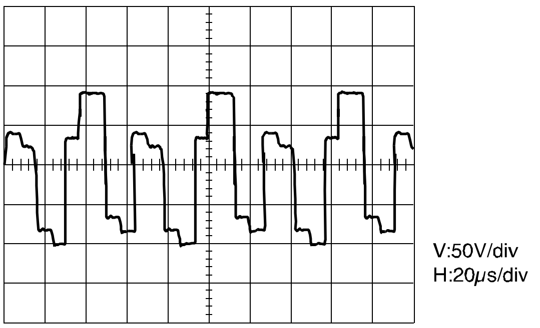
(19) Q403 COLLECTOR



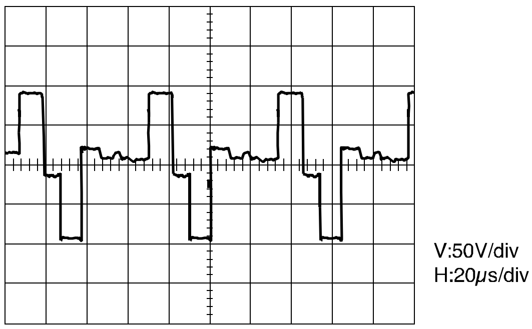
(20) CRT SOCKET PIN B



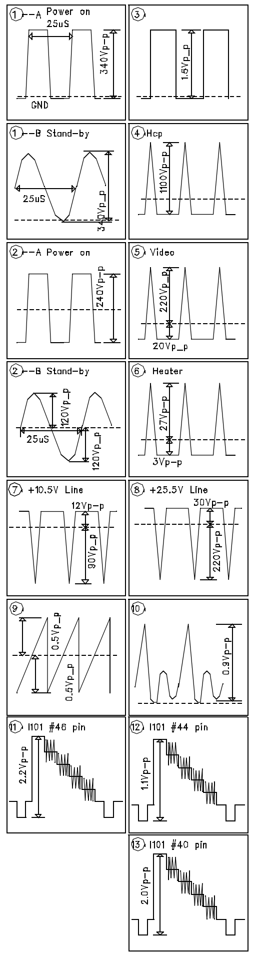
(21) CRT SOCKET PIN R

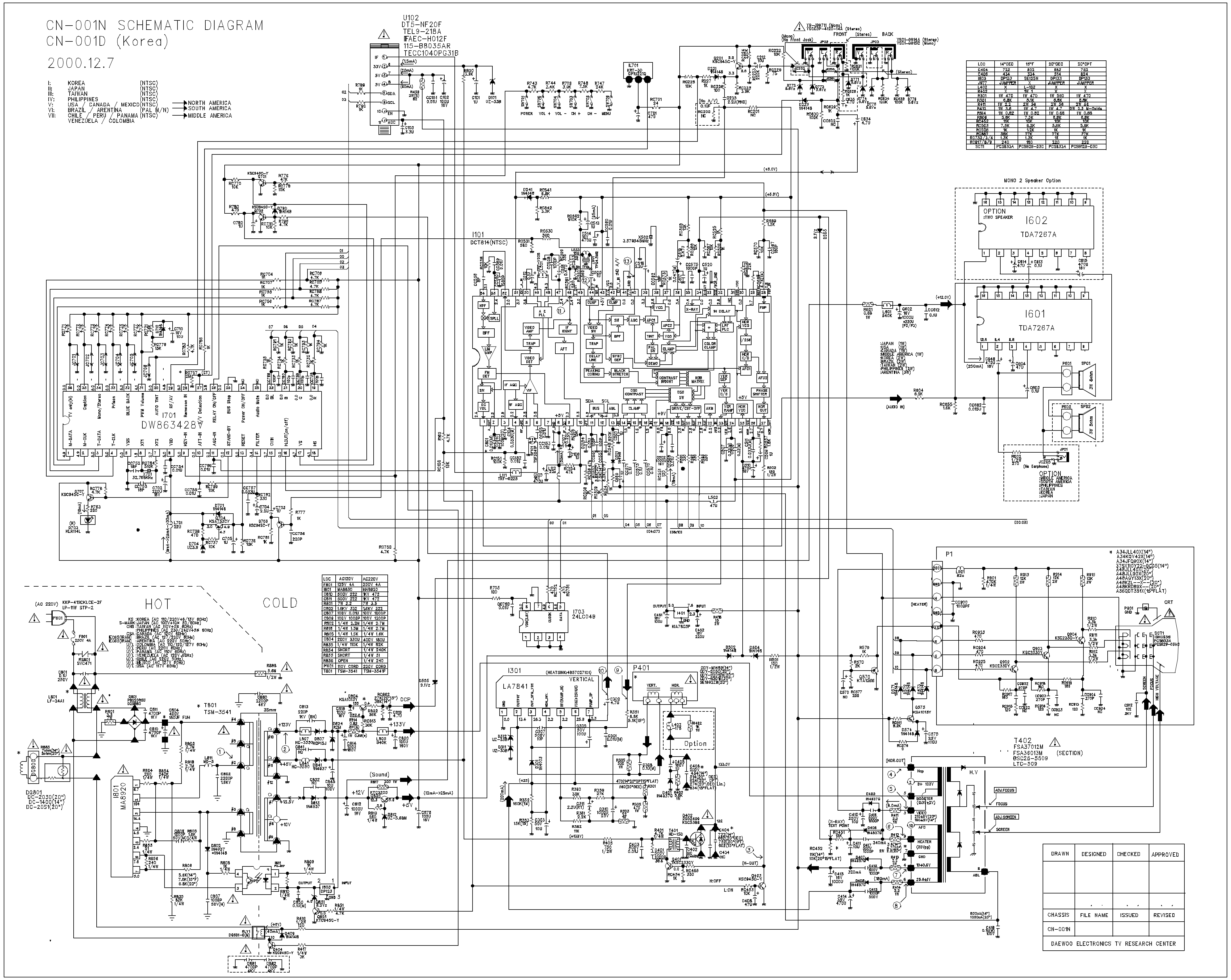


(22) CRT SOCKET PIN G



SCHEMATIC DIAGRAM





1. CAUTION

⚠ SYMBOL MARKED PARTS IN THE SCHEMATIC DIAGRAM DESIGNATE THE COMPONENTS WHICH HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY AND SHOULD BE REPLACED ONLY WITH TYPES INDENTICAL TO THOSE IN ORIGINAL CIRCUIT OR SPECIFIED IN THE PARTS LIST.
DO NOT DEGRADE THE SAFETY OF THE RECEIVER THROUGH IMPROPER SERVICING.

WARING :

BEFORE SERVICING THIS CHASSIS,READ THE "X-RAY RADIATION PRECAUTION " "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" IN THE SERVICE MANUAL.

CAUTION TO THE SERVICE TECHNICIANS :

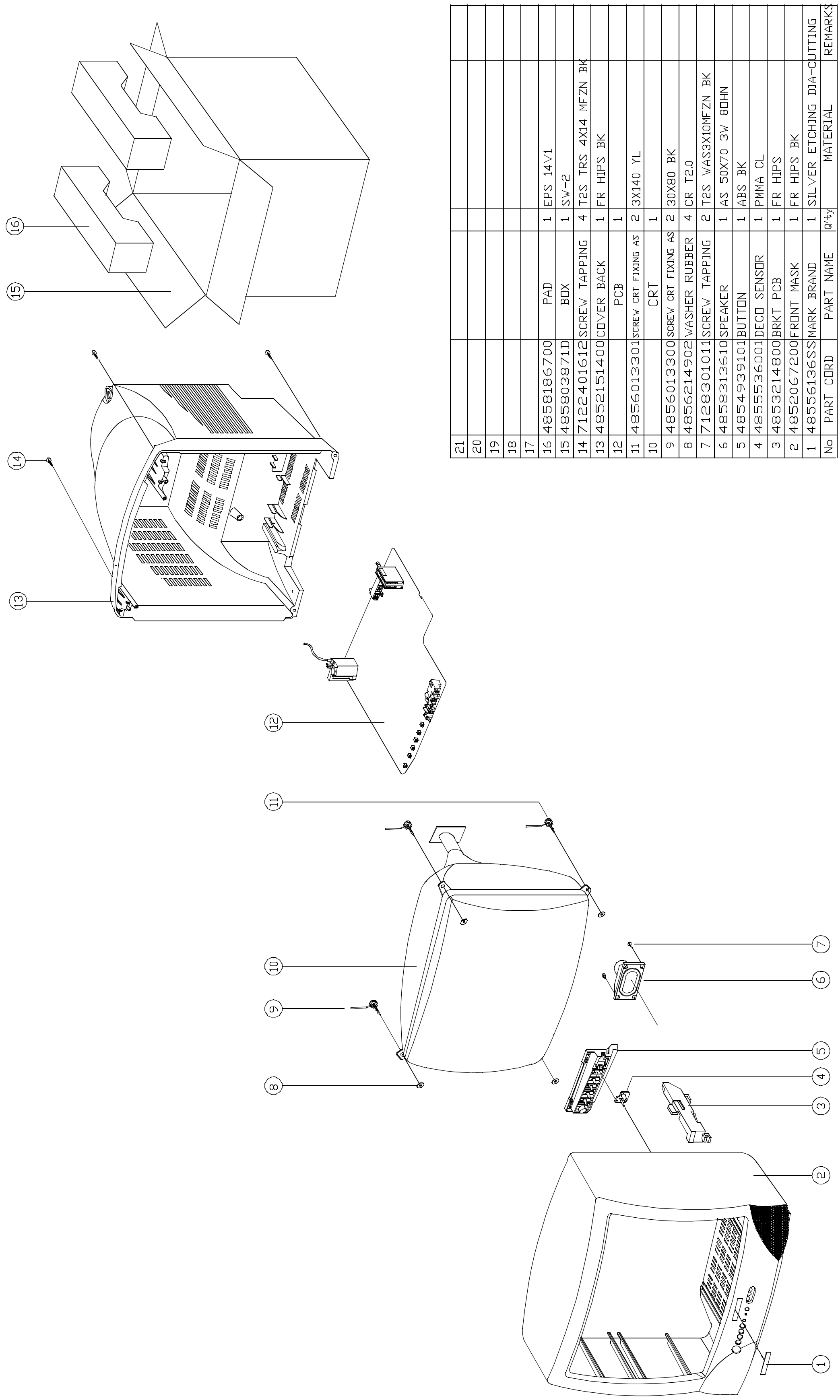
BEFORE RETURNING THE RECEIVER TO THE CUSTOMER APPROPRIATE LEAKAGE CURRENT OR RESISTANCE MEASUREMENT SHOULD BE CONDUCTED TO DETERMINE THAT EXPOSED PARTS ARE PROPERLY INSULATED FROM THE SUPPLY CIRCUIT.

NOTE :

1. RESISTANCE IS SHOWN IN OHMS. K=1,000 M=1,000,000
2. UNLESS OTHERWISE NOTED IN SCHEMATIC ALL CAPACITOR VALUES LESS THAN 1 ARE EXPRESSED IN μF AND THE VALUES MORE THAN 1 IN pF.
3. VOLTAGES READ WITH "V.T.V.M" FROM POINT INDICATE TO CHASSIS GROUND USING A COLOR BAR SIGNAL WITH ALL CONTROLS AT NORMAL LINE VOLTAGE 120 VOLTS AC.
   VOLTAGE READINGS SHOWN ARE NORMAL VALUES AND MAY VARY ±20% EXCEPT H.V.
4. IN CASE OF 19" RECEIVER THE COMPONENT WITH THE MARK * SHOULD BE USED ONLY.
5. THE CIRCUIT DIAGRAM IS A STANDARD ONE. CIRCUITS PRINTED MAY BE SUBJECT TO CHANGE FOR PRODUCT IMPROVEMENT WITHOUT PRIOR NOTICE.

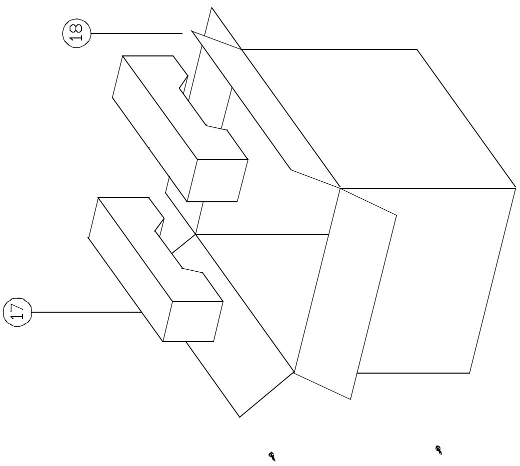
EXPLODED VIEW

1. DTQ-14V1FSN

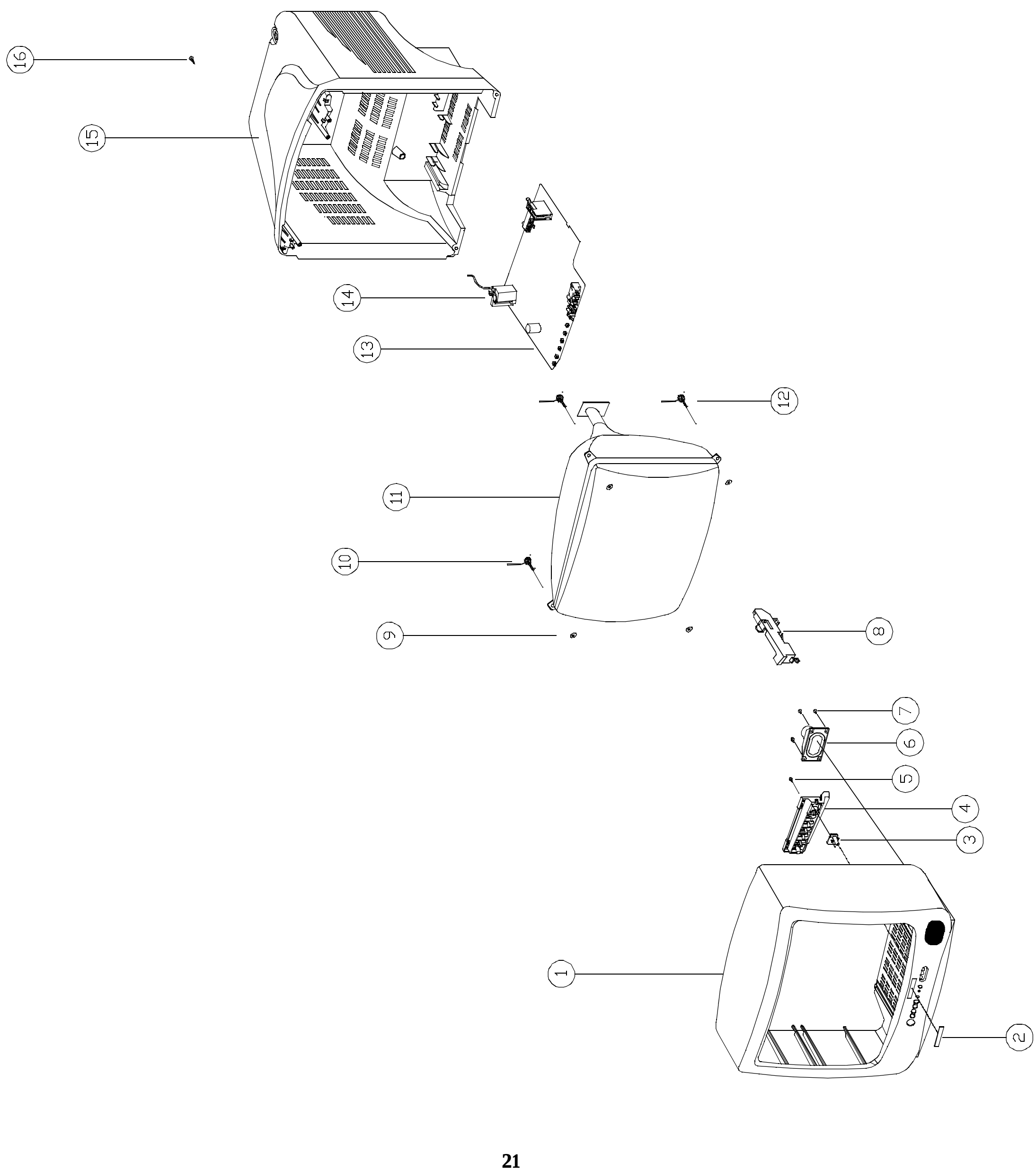


No	PART CORD	PART NAME	Q'ty	MATERIAL	REMARKS
21					
20					
19					
18					
17					
16	4858186700	PAD	1	EPS 14V1	
15	485803871D	BOX	1	SW-2	
14	7122401612	SCREW TAPPING	4	T2S TRS 4X14 MFZN BK	
13	4852151400	COVER BACK	1	FR HIPS BK	
12		PCB	1		
11	4856013301	SCREW CRT FIXING AS	2	3X140 YL	
10		CRT	1		
9	4856013300	SCREW CRT FIXING AS	2	30X80 BK	
8	4856214902	WASHER RUBBER	4	CR T2.0	
7	7128301011	SCREW TAPPING	2	T2S WAS3X10MFZN BK	
6	4858313610	SPEAKER	1	AS 50X70 3W 8OHN	
5	4854939101	BUTTON	1	ABS BK	
4	4855536001	DECO SENSOR	1	PMMA CL	
3	4853214800	BRKT PCB	1	FR HIPS	
2	4852067200	FRONT MASK	1	FR HIPS BK	
1	48556136SS	MARK BRAND	1	SILVER ETCHING DIA-CUTTING	

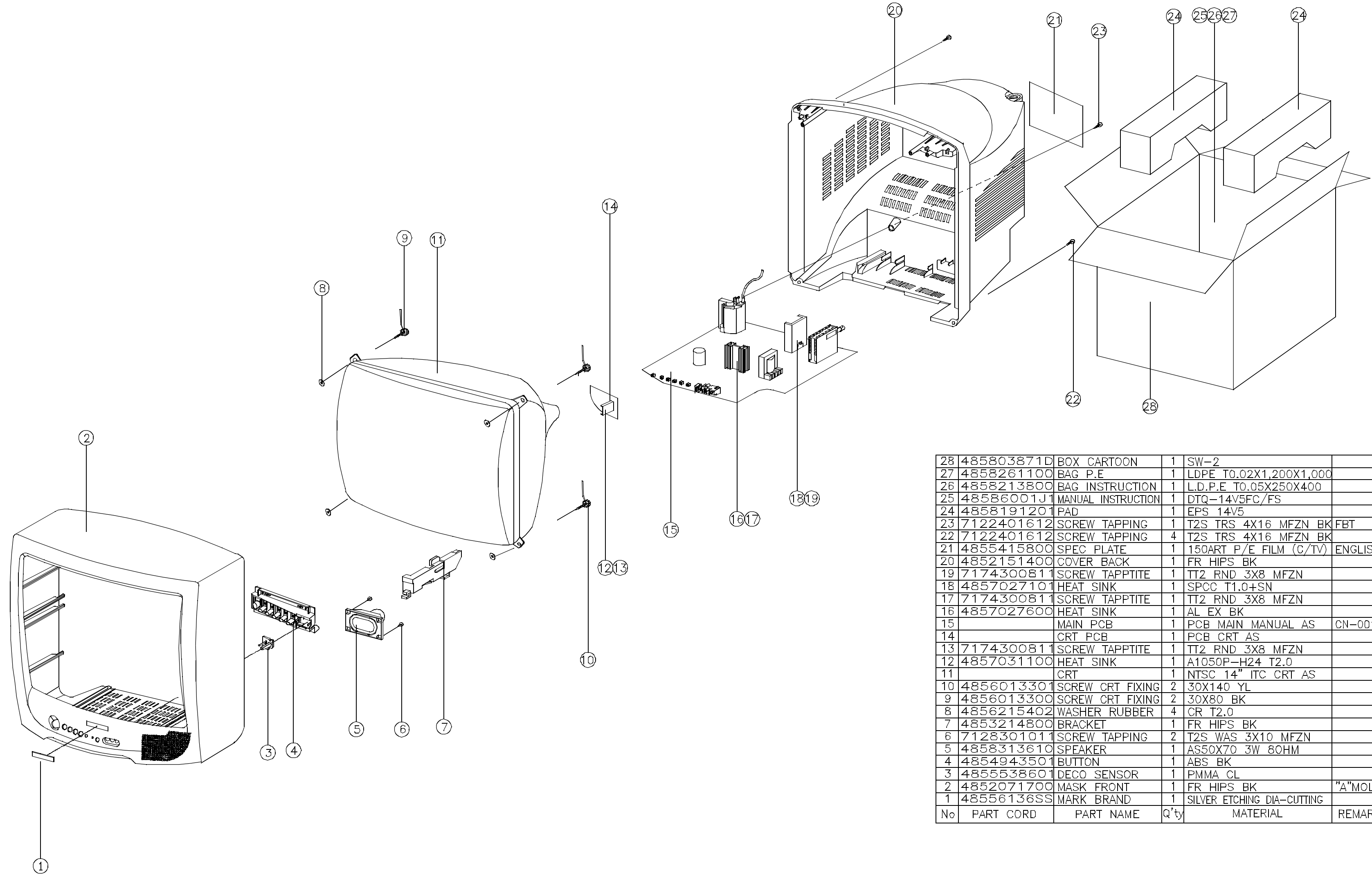
2. DTQ-14V3FSN



No	PART CODE	PART NAME	Q'ty	MATERIAL	REMARKS
24					
23					
22					
21					
20					
19					
18	485803871D	BOX	1	SW-2	
17	4858187500	PAD	1	EPS 14V3	
16	7122401612	SCREW TAPPING	4	T2S TRS 4X16 MFZN BK	
15	4852152100	COVER BACK	1	FR HIPS BK	
14		FBT	1		
13		PCB	1		
12	4856013301	SCREW CRT FIXING AS	2	30X140 YL	
11	48A96414N7	CRT	1	A34JLL40XP35	
10	4856013300	SCREW CRT FIXING AS	2	30X80 BK	
9	4856214902	WASHER RUBBER	4	CR T2.0	
8	4853214801	BRKT	1	HIPS BK	
7	7128301011	SCREW TAPPING	4	T2S WAS 3X10 MFZN	
6	4858313610	SPEAKER	1	AS 50X70 3W 8 OHN	
5	7128301011	SCREW TAPPING	2	T2S WAS 3X10 MFZN	
4	4854940100	BUTTON	1	ABS BK	
3	4855536600	DECO SENSOR	1	PMMA CL	
2	48556136SS	MARK BRAND	1	SILVER ETCHING DIA-CUTTING	
1	4852068300	FRONT MASK	1	FR HIPS BK	

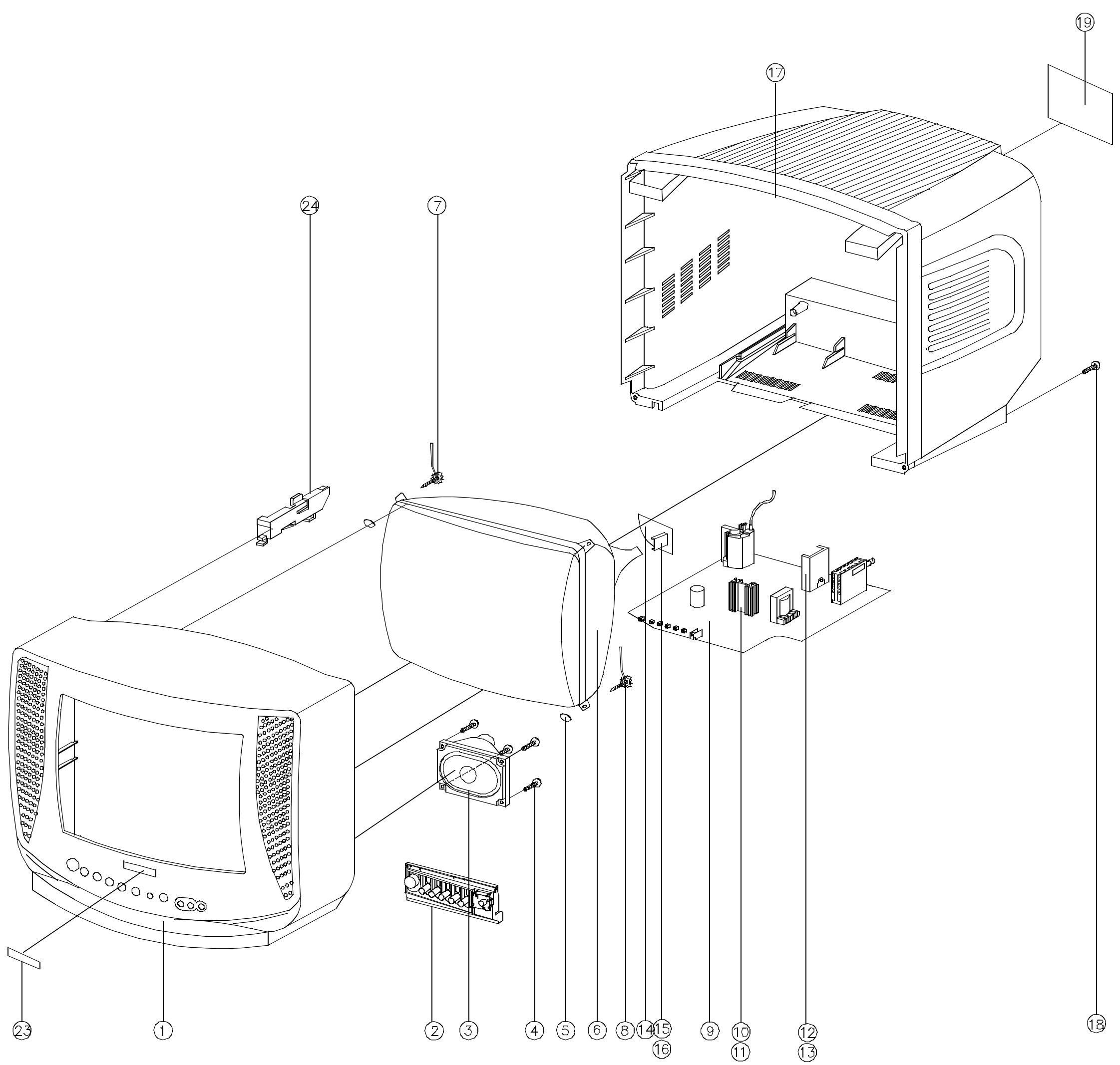


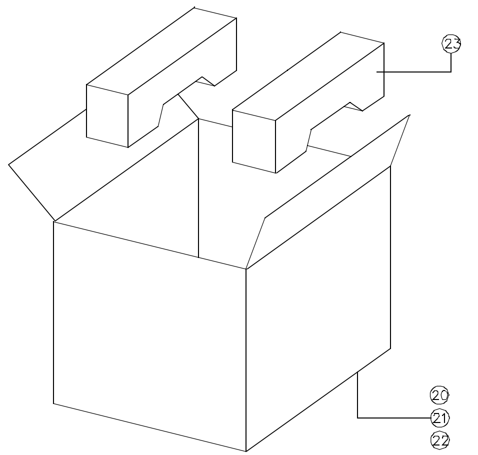
3. DTQ-14V5FCN / FSN



No	PART CORD	PART NAME	Q'ty	MATERIAL	REMARKS
28	485803871D	BOX CARTOON	1	SW-2	
27	4858261100	BAG P.E	1	LDPE T0.02X1,200X1,000	
26	4858213800	BAG INSTRUCTION	1	L.D.P.E T0.05X250X400	
25	48586001J1	MANUAL INSTRUCTION	1	DTQ-14V5FC/FS	
24	4858191201	PAD	1	EPS 14V5	
23	7122401612	SCREW TAPPING	1	T2S TRS 4X16 MFZN BK	FBT
22	7122401612	SCREW TAPPING	4	T2S TRS 4X16 MFZN BK	
21	4855415800	SPEC PLATE	1	150ART P/E FILM (C/TV)	ENGLISH
20	4852151400	COVER BACK	1	FR HIPS BK	
19	7174300811	SCREW TAPPTITE	1	TT2 RND 3X8 MFZN	
18	4857027101	HEAT SINK	1	SPCC T1.0+SN	
17	7174300811	SCREW TAPPTITE	1	TT2 RND 3X8 MFZN	
16	4857027600	HEAT SINK	1	AL EX BK	
15		MAIN PCB	1	PCB MAIN MANUAL AS	CN-001A
14		CRT PCB	1	PCB CRT AS	
13	7174300811	SCREW TAPPTITE	1	TT2 RND 3X8 MFZN	
12	4857031100	HEAT SINK	1	A1050P-H24 T2.0	
11		CRT	1	NTSC 14" ITC CRT AS	
10	4856013301	SCREW CRT FIXING	2	30X140 YL	
9	4856013300	SCREW CRT FIXING	2	30X80 BK	
8	4856215402	WASHER RUBBER	4	CR T2.0	
7	4853214800	BRACKET	1	FR HIPS BK	
6	7128301011	SCREW TAPPING	2	T2S WAS 3X10 MFZN	
5	4858313610	SPEAKER	1	AS50X70 3W 8OHM	
4	4854943501	BUTTON	1	ABS BK	
3	4855538601	DECO SENSOR	1	PMMA CL	
2	4852071700	MASK FRONT	1	FR HIPS BK	"A"MOLD
1	48556136SS	MARK BRAND	1	SILVER ETCHING DIA-CUTTING	

4. DTQ-14U1FSN

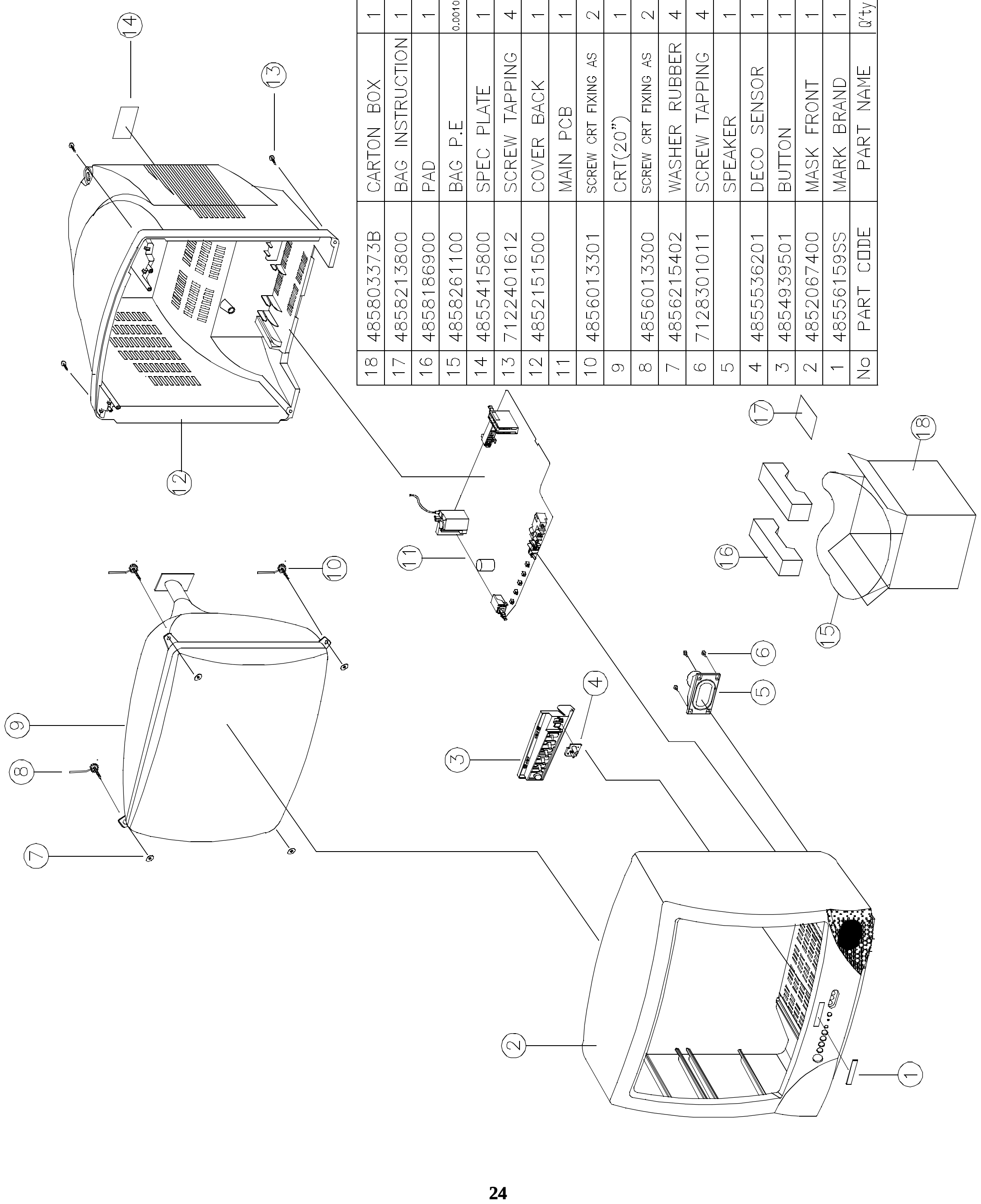




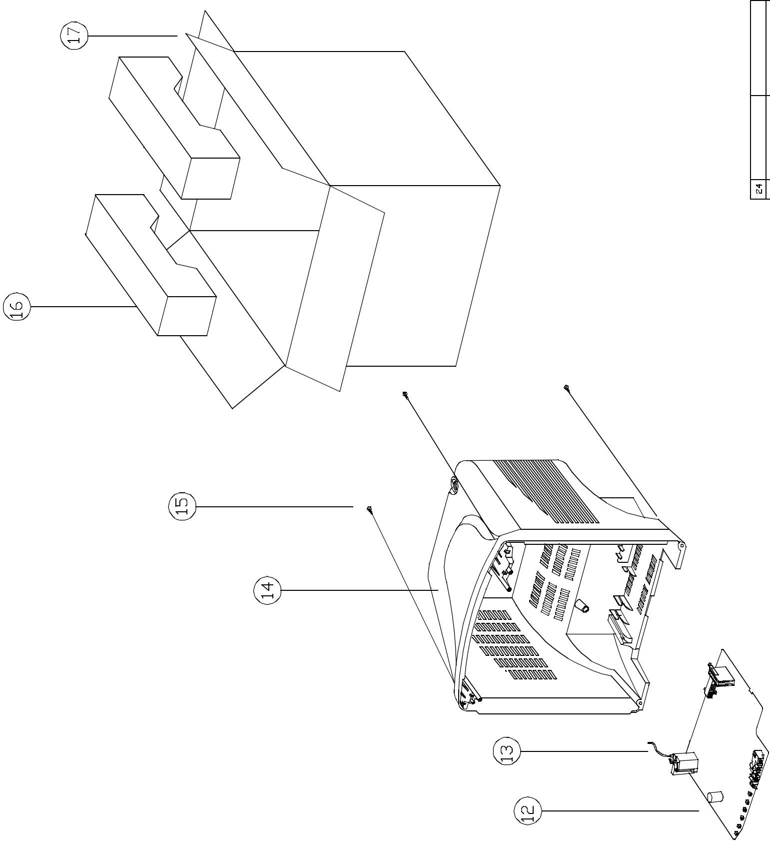
No	PART CODE	PART NAME	Q'ty	MATERIAL	REMARKS
25	4853214800	BRKT PCB	1	FR HIPS	
24	48556136SS	MARK BRAND	1	SILVER ETCHING DIA-CUTTING	
23	485891400	PAD	1	EPS 20P3	
22	485818600	STAPLE PIN	12	18M/M J D 0	
21	4858261100	BAG P.E	0.001	LDPE T0.2X1200X1000000	
20	4858055100	BOX CARTON	1	SW-2	
19	4855415800	SPEC PLATE	1	150ART P/E FILM (C/TV)	
18	7122401412	SCREW TAPPING	4	T2S TRS 4X14 MFZN BK	
17	4852153300	COVER BACK	1	FR HIPS BK	
16	7174300811	SCREW TAPPTITE	1	TT2 RND 3X8 MFZN	
15	4857027101	HEAT SINK	1	SPCC T1.0 + SN	
14		CRT PCB	1		
13	7174300811	SCREW TAPPTITE	1	TT2 RND 3X8 MFZN	
12	4857018902	HEAT SINK	1	A10509-H24	
11	7174300811	SCREW TAPPTITE	1	TT2 RND 3X8 MFZN	
10	4857024500	HEAT SINK	1	AL EX B/K	
9		MAIN PCB	1	CN-001A	
8	4856013302	SCREW FIX	2	30X190 BK	
7	4856013300	SCREW FIX	2	30X80 BK	
6		CRT	1		
5	4856215402	WASHER RUBBER	4	CR T2.0	
4	7128301011	SCREW TAPPING	4	T2S WAS 3X10 MFZN	
3	4858313610	SPEAKER	1	AS50X70 3W 8 OHM	
2	4858313610	BUTTON CTRL AS.	1	4854942701+4855536900	
1	4852071100	MASK FRONT	1	FR HIPS BK	

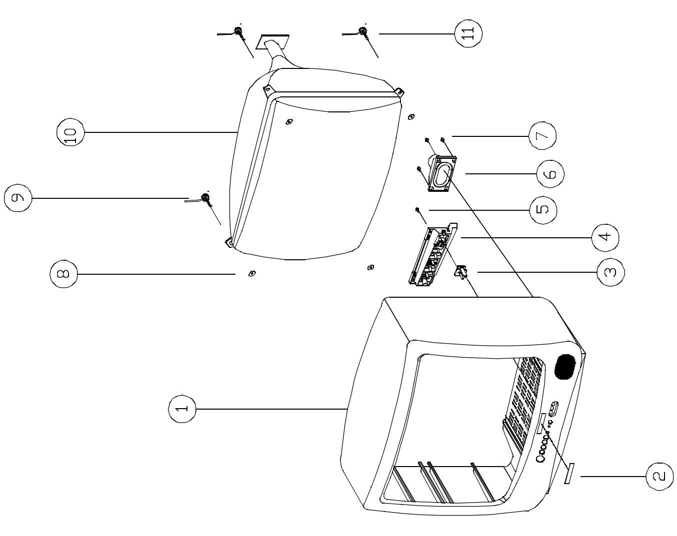
5. DTQ-20V1FSN

No	PART CODE	PART NAME	Q'ty	MATERIAL	REMARKS
18	485803373B	CARTON BOX	1	DW-3A	
17	4858213800	BAG INSTRUCTION	1	LDPE T0.05X250X400	
16	4858186900	PAD	1	EPS 20V1	
15	4858261100	BAG P.E	0.0010	LDPE T0.02X1200X1000000	
14	4855415800	SPEC PLATE	1	150 ART P/E FILM(C/TV)	
13	7122401612	SCREW TAPPING	4	T2S TRS 4X16 MFZN BK	
12	4852151500	COVER BACK	1	FR HIPS BK	
11		MAIN PCB	1	CN-001A	
10	4856013301	SCREW CRT FIXING AS	2	30X140YL	
9		CRT(20")	1		
8	4856013300	SCREW CRT FIXING AS	2	30X80BK	
7	4856215402	WASHER RUBBER	4	CR T2.1	
6	7128301011	SCREW TAPPING	4	T2S WAS 3X10 MFZN	
5		SPEAKER	1		
4	4855536201	DECO SENSOR	1	PMMA CL	
3	4854939501	BUTTON	1	ABS BK	
2	4852067400	MASK FRONT	1	FR HIPS BK	
1	48556159SS	MARK BRAND	1	SILVER ETCHING DIA-CUTTING	



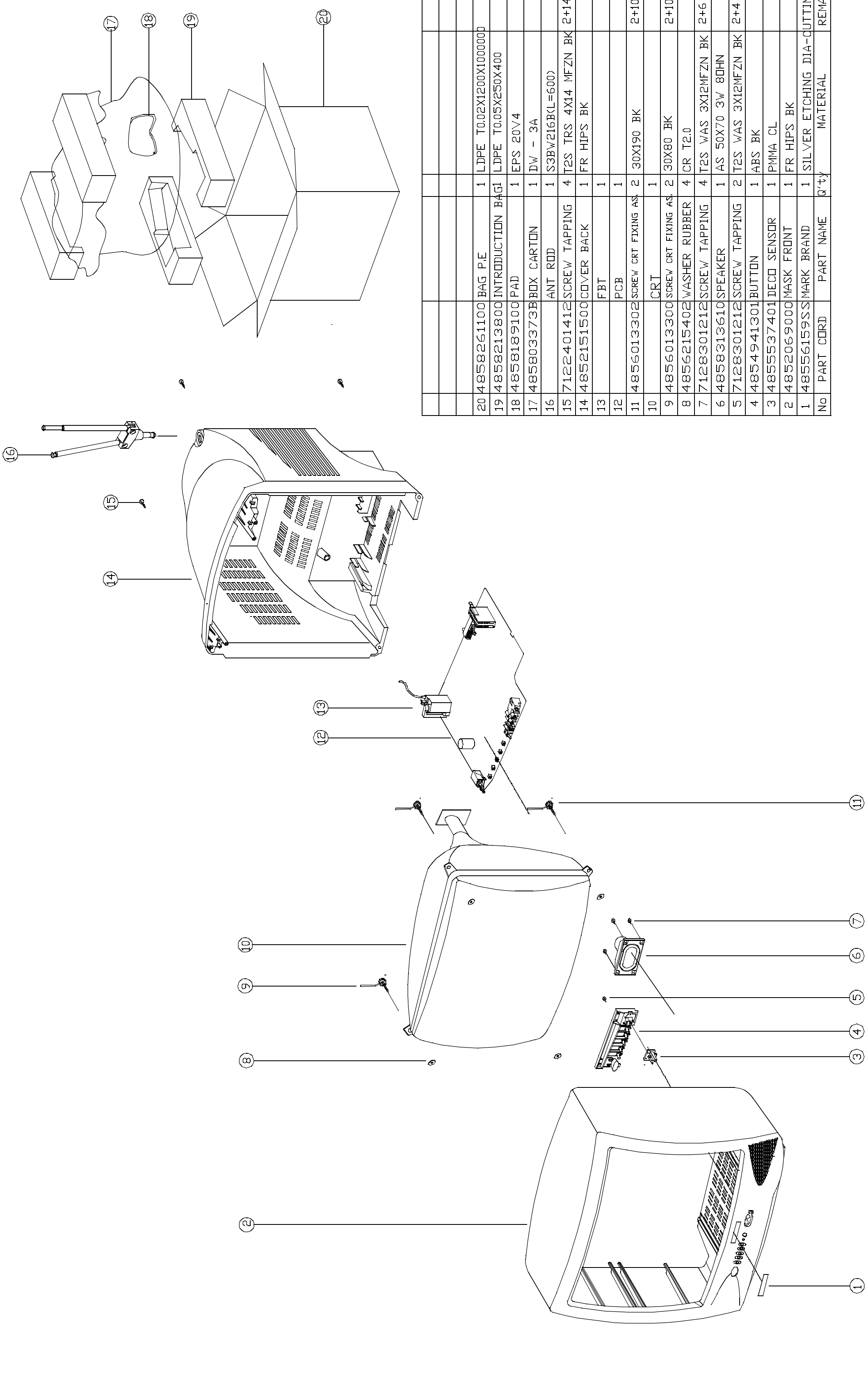
6. DTQ-20V3FSN





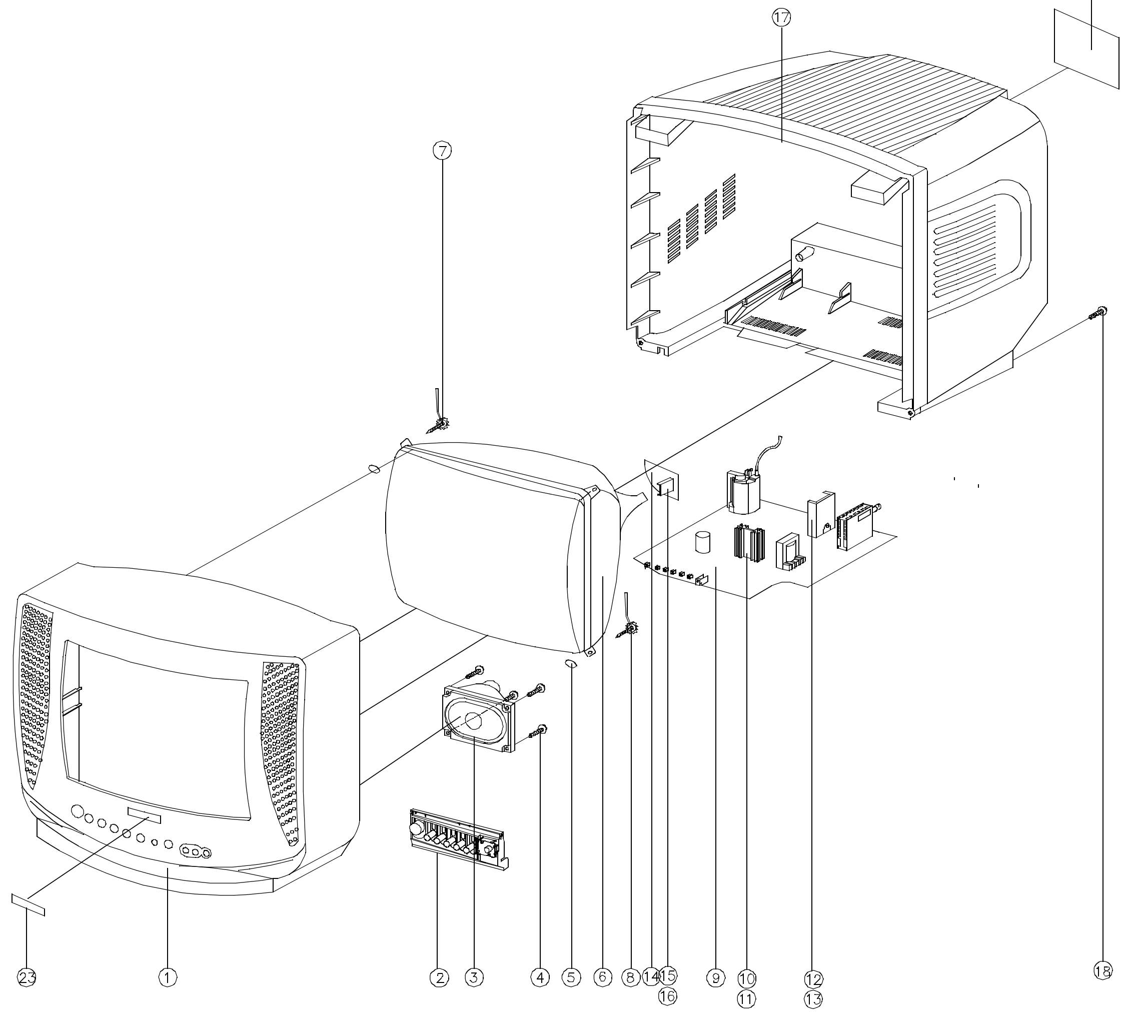
No	PART CODE	PART NAME	Q'ty	MATERIAL	REMARKS
24					
23					
22					
21					
20					
19					
18					
17	4858033700	BOX	1	DW-2	
16	4858187800	PAD	1	EPS 20V3	
15	7122401412	SCREW TAPPING	4	T2S TRS 4X14 MFZN BK	
14	4852152000	COVER BACK	1	FR HIPS BK	
13		FBT	1		
12		PCB	1		
11	4856013301	SCREW CRT FIXING AS	2	30X140 YL	
10	48A96420NL	CRT	1	A48JLL40XJAPAN	
9	4856013300	SCREW CRT FIXING AS	2	30X80 BK	
8	4856215402	WASHER RUBBER	4	CR T2.0	
7	7128301011	SCREW TAPPING	4	T2S WAS 3X10 MFZN	
6	4858313610	SPEAKER	1	AS 50X70 3W 8 OHM	
5	7128301011	SCREW TAPPING	2	T2S WAS 3X10 MFZN	
4	4854940001	BUTTON	1	ABS BK	
3	4855536900	DECO SENSOR	1	PMMA CL	
2	48556159SS	MARK BRAND	1	SILVER ETCHING DIA-CUTTING	
1	4852068400	FRONT MASK	1	FR HIPS BK	

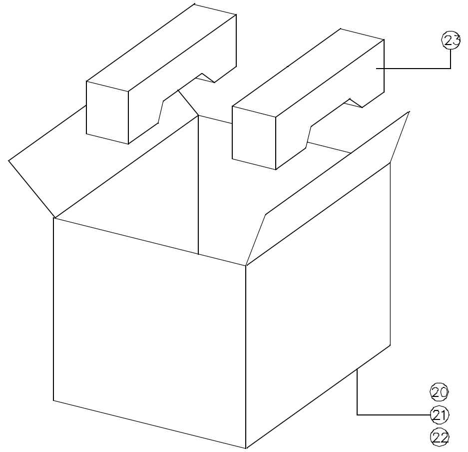
7. DTQ-20V4FSN



No	PART CORD	PART NAME	Q'ty	MATERIAL	REMARKS
20	4858261100	BAG P.E	1	LDPE T0.02X1200X1000000	
19	4858213800	INTRODUCTION BAG	1	LDPE T0.05X250X400	
18	4858189100	PAD	1	EPS 20V4	
17	485803373B	BOX CARTON	1	DW - 3A	
16		ANT ROD	1	S3BW216BK(L=600)	
15	7122401412	SCREW TAPPING	4	T2S TRS 4X14 MFZN BK	2+14
14	4852151500	COVER BACK	1	FR HIPS BK	
13		FBT	1		
12		PCB	1		
11	4856013302	SCREW CRT FIXING AS.	2	30X190 BK	2+10
10		CRT	1		
9	4856013300	SCREW CRT FIXING AS.	2	30X80 BK	2+10
8	4856215402	WASHER RUBBER	4	CR T2.0	
7	7128301212	SCREW TAPPING	4	T2S WAS 3X12MFZN BK	2+6
6	4858313610	SPEAKER	1	AS 50X70 3W 8OHN	
5	7128301212	SCREW TAPPING	2	T2S WAS 3X12MFZN BK	2+4
4	4854941301	BUTTON	1	ABS BK	
3	4855537401	DECO SENSOR	1	PMMA CL	
2	4852069000	MASK FRONT	1	FR HIPS BK	
1	48556159SS	MARK BRAND	1	SILVER ETCHING DIA-CUTTING	

8. DTQ-20U1FSN





No	PART CODE	PART NAME	Q'ty	MATERIAL	REMARKS
25					
24	48556159SS	MARK BRAND	1	SILVER ETCHING DIA-CUTTING	
23	485891500	PAD	1	EPS 20P3	
22	485818600	STAPLE PIN	12	18M/M J D O	
21	4858261100	BAG P.E	0.001	LDPE T0.2X1200X1000000	
20	4858050700	BOX CARTON	1	DW-3	
19	4855415800	SPEC PLATE	1	150ART P/E FILM (C/TV)	
18	7122401412	SCREW TAPPING	4	T2S TRS 4X14 MFZN BK	
17	4852153900	COVER BACK	1	FR HIPS BK	
16	7174300811	SCREW TAPPTITE	1	TT2 RND 3X8 MFZN	
15	4857027101	HEAT SINK	1	SPCC T1.0 + SN	
14		CRT PCB	1		
13	7174300811	SCREW TAPPTITE	1	TT2 RND 3X8 MFZN	
12	4857018902	HEAT SINK	1	A10509-H24	
11	7174300811	SCREW TAPPTITE	1	TT2 RND 3X8 MFZN	
10	4857024500	HEAT SINK	1	AL EX B/K	
9		MAIN PCB	1	CN-001A	
8	4856013302	SCREW FIX	2	30X190 BK	
7	4856013300	SCREW FIX	2	30X80 BK	
6		CRT	1		
5	4856215402	WASHER RUBBER	4	CR T2.0	
4	7128301011	SCREW TAPPING	4	T2S WAS 3X10 MFZN	
3	4858313610	SPEAKER	1	AS50X70 3W 8 OHM	
2	4858313610	BUTTON CTRL AS.	1	4854943301+4855539401	
1	4852072100	MASK FRONT	1	FR HIPS BK	

ELECTRICAL PARTS LIST

CAUTION

"⚠" is a safety part, so it must be used the same part.
"Ⓡ" is a recommendable part for essential stock.

LOC	PART CODE	PART NAME	DESCRIPTION	REMARK
ZZ100	48B4343A01	TRANSMITTER REMOCON	R-43A01 (AA)	
ZZ110	PTACPWH394	ACCESSORY AS	DTQ-14P2FC	
10	4850A02510	ANT ROD	S3BW216B (L=600 MM)	
30	4850Q00810	BATTERY	R6P/LN	
40	4850A00250	TRANS ANT MATCHING	IMT-06	
10000	4.86E+09	MANUAL INSTRUCTION	DTQ-20V1FS	
M821	4858213800	BAG INSTRUCTION	L.D.P.E T0.05X250X400	
ZZ120	PTBCSHH488	COVER BACK AS	DTQ-14V1FCN	
M211	4852151400	COVER BACK	FR HIPS BK	
M211B	4857817640	CLOTH BLACK	FELT 100X20X0.7	
ZZ130	PTPKCPH488	PACKING AS	DTQ-14V1FCN	
10	6520010100	STAPLE PIN	18M/M J D O	
M801	485803871D	BOX CARTON	SW-2	
M811	4858186700	PAD	EPS 14V1	
M821	4858210600	BAG P.E	L.D.P.E T0.03X1000X900	
ZZ131	58G0000078	COIL DEGAUSSING	DC-1400	
ZZ132	48519A4710	CRT GROUND NET	1401S-1015-1P	
ZZ140	PTCACAH488	CABINET AS	DTQ-14V1FCN	
CRT1	PTRTPWH394	CRT AS	"NTSC 14"" ITC CRT AS"	Ⓡ ⚠
V01	58D0000082	COIL DY	ODY-M1489	⚠
V02	2233030001	PAINT LOCK	760G	
V03	2TC26019BE	TAPE CLOTH	19X30 BEIGE	
V04	2224050026	BOND SILICON	RTV 122 CARTRIDGE	
V05	4850PM001-	MAGNET CP	NY-225 (MINI NECK)	
V06	48A96R004-	RUBBER WEDGE	HMR 28 SR (|0X54)	
V901	48A96314C3	CRT BARE	A34KQV42X	
M191	4851931800	BUTTON CTRL	4939100+5536001	
M201A	4856013350	SCREW CRT FIXING	25X80 BK	
M201B	4856215402	WASHER RUBBER	CR T2.0	
M211A	7172401412	SCREW TAPPTITE	TT2 TRS 4X14 MFZN BK	
M321	4853214800	BRKT	FR HIPS BK	
M541	4855415800	SPEC PLATE	150ART P/E FILM (C/TV)	
M561	4855613600	MARK BRAND	COPPER T0.4	
M601	4856013351	SCREW CRT FIXING	25X140 YL	
M681	4856812001	TIE CABLE	NYLON66 DA100	
SP01A	7178301011	SCREW TAPPTITE	TT2 WAS 3X10 MFZN	
ZZ200	PTFMSJH488	MASK FRONT AS	DTQ-14V1FCN	
M201	4852067200	MASK FRONT	FR HIPS BK	
ZZ202	PTSPPWH407	SPEAKER AS	DTQ-14J4FC	
PA601	4850703S50	CONNECTOR	YH025-03+35098+ULW=200	
SP01	4858314010	SPEAKER	SP-5070F01 3W 8 OHM	Ⓡ
ZZ290	PTMPMSH488	PCB MAIN MANUAL AS	DTQ-14V1FCN	Ⓡ
10	2193100710	SOLDER POWER BAR	S62S-PB37-SB1	
20	2193011101	SOLDER WIRE	RS 60-1.2 1.6A	
30	2291050615	FLUX SOLDER	DF-2012U	
40	2291050301	FLUX SOLVENT	IM-1000	
50	2291140501	WAX COVER		
80	2TP07545CL	TAPE OPP	45X50 CLEAR	
90	2291051001	FLUX KILLER	KFT-7	
100	2291130215	GREASE SILICON	G-600	
C403	CCYB2H103K	C CERA	500V B 0.01MF K	
C404	CMYH3C722H	C MYLAR	1.6KV BUP 7200PF H	
C406	CMYE2D434J	C MYLAR	200V PU 0.43MF J	
C801	CL1UC3104M	C LINE ACROSS	WORLD AC250V 0.1UF M R.47	
C802	CMYH3C332J	C MYLAR	1.6KV BUP 3300PF J	
C804	CEYN2D331P	C ELECTRO	200V LHS 330MF	
C881	CH1BFE472M	C CERA AC	AC400V 4700PF M U/C/V	⚠
C882	CH1BFE472M	C CERA AC	AC400V 4700PF M U/C/V	⚠
D703	DLH2PR----	LED BLOCK	LH-2P-R	
D801	DPBS208GUF	DIODE BRIDGE	PBS208GU-CA (FORMING)	
F801	5F1GB4021L	FUSE GLASS TUBE	UL/CSA TL 4A 125V MF51	Ⓡ ⚠
I101	1DCT814B--	IC CHROMA	DCT814B	Ⓡ
I301	PTC2SW7101	HEAT SINK ASS Y	1LA7841--- + 7174300811	
I301	1LA7841---	IC VERTICAL	LA7841	Ⓡ
I301A	4857027101	HEAT SINK	SPCC T1.0+SN	
I301B	7174300811	SCREW TAPPTITE	TT2 RND 3X8 MFZN	
I401	1K1A7805P1	IC REGULATOR	KIA7805API	
I601	1TDA7267--	IC AUDIO AMP	TDA7267	Ⓡ
I701	1DW8634NA1	IC MICOM	DW863432V-NA1	Ⓡ
I703	124LC04B--	IC MEMORY	24LC04B	Ⓡ
I801	1MA8630---	IC POWER	MA8630	Ⓡ ⚠
I802	1LTV817C--	IC PHOTO COUPLER	LTV-817C	
I803	1DP133----	IC ERROR AMP	DP133	Ⓡ
IL701	1KRT30----	IC PREAMP	KRT30	
JP02	4859109950	JACK PIN BOARD	PH-JB-9710A	
JP03	4859109150	JACK PIN BOARD	PH-JB-9615C	
L111	58C5580019	COIL CHOKE	TRF-9225 (0.55UH)	
L501	58N0000042	COIL VCO	TRF-V008	
L801	5PLF24A1--	FILTER LINE	LF-24A1	⚠
M681	4856812001	TIE CABLE	NYLON66 DA100	
P401	4859240020	CONN WAFER	YFW500-05	
P501	4850708N11	CONNECTOR	BIC-08T-25T+C-20T+ULW=300	
PWC1	4859907910	CORD POWER AS	ME301P+TER=1830	Ⓡ ⚠
Q402	TKSC5386--	TR	KSC5386	Ⓡ
Q902	TKTC3229--	TR	KTC 3229	
Q903	TKTC3229--	TR	KTC 3229	
Q904	TKTC3229--	TR	KTC 3229	
R801	RX07C229JF	R CEMENT	7W 2.2 0HM J 15MM 4P	
R881	DEC7R0M140	POSISTOR	ECPAC7R0M140	
RLY1	5SC0101338	SW RELAY	DQ5D1-O(M)/GJ-SS-105LM	⚠

ELECTRICAL PARTS LIST

LOC	PART CODE	PART NAME	DESCRIPTION	REMARK
RS801	DSVC471D14	VARISTOR	SVC471D14A	⚠
SCT1	4859303930	SOCKET CRT	ISMG03S INCHANG	® ⚠
SF101	5PTSF5241P	FILTER SAW	TSF5241P	
T401	50D10A3---	TRANS DRIVE	TD-10A3	
T402	50H0000198	FBT	FSA37012M	® ⚠
T801	50M3541T2-	TRANS SMPS	TSM-3541T2	⚠
U102	4859719130	TUNER VARACTOR	DT5-NF20F	® ⚠
X701	5XYR03276C	CRYSTAL QUARTZ	C-001R 32.768000KHZ 20PPM	
Z501	5PYXT4R5MB	FILTER CERA	XT 4.5MB	
ZZ200	PTMPJ2H488	PCB CHIP MOUNT B AS	DTQ-14V1FCN	
CC151	HCBK103KCA	C CHIP CERA	50V X7R 0.01MF K 2012	
CC152	HCBK103KCA	C CHIP CERA	50V X7R 0.01MF K 2012	
CC153	HCBK103KCA	C CHIP CERA	50V X7R 0.01MF K 2012	
CC154	HCBK103KCA	C CHIP CERA	50V X7R 0.01MF K 2012	
CC155	HCBK103KCA	C CHIP CERA	50V X7R 0.01MF K 2012	
CC528	HCBK102KCA	C CHIP CERA	50V X7R 1000PF K 2012	
CC551	HCQK101JCA	C CHIP CERA	50V CH 100PF J 2012	
CC552	HCQK101JCA	C CHIP CERA	50V CH 100PF J 2012	
CC556	HCQK809DCA	C CHIP CERA	50V CH 8PF D 2012	
CC560	HCBK103KCA	C CHIP CERA	50V X7R 0.01MF K 2012	
CC562	HCQK180JCA	C CHIP CERA	50V CH 18PF J 2012	
CC567	HCQK181JCA	C CHIP CERA	50V CH 180PF J 2012	
CC568	HCBK103KCA	C CHIP CERA	50V X7R 0.01MF K 2012	
CC569	HCBK103KCA	C CHIP CERA	50V X7R 0.01MF K 2012	
CC570	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012	
CC571	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012	
CC573	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012	
CC575	HCBK102KCA	C CHIP CERA	50V X7R 1000PF K 2012	
CC580	HCBK152KCA	C CHIP CERA	50V X7R 1500PF K 2012	
CC612	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012	
CC662	HCBK153KCA	C CHIP CERA	50V X7R 0.015MF K 2012	
CC752	HCQK180JCA	C CHIP CERA	50V CH 18PF J 2012	
CC753	HCQK180JCA	C CHIP CERA	50V CH 18PF J 2012	
CC754	HCBK103KCA	C CHIP CERA	50V X7R 0.01MF K 2012	
CC755	HCBK103KCA	C CHIP CERA	50V X7R 0.01MF K 2012	
CC756	HCQK221JCA	C CHIP CERA	50V CH 220PF J 2012	
CC757	HCBK333KCA	C CHIP CERA	50V X7R 0.033MF K 2012	
CC758	HCQK101JCA	C CHIP CERA	50V CH 100PF J 2012	
CC759	HCQK101JCA	C CHIP CERA	50V CH 100PF J 2012	
CC760	HCQK101JCA	C CHIP CERA	50V CH 100PF J 2012	
CC768	HCQK101JCA	C CHIP CERA	50V CH 100PF J 2012	
CC780	HCBK103KCA	C CHIP CERA	50V X7R 0.01MF K 2012	
CC796	HCBK103KCA	C CHIP CERA	50V X7R 0.01MF K 2012	
CC900	HCBK102KCA	C CHIP CERA	50V X7R 1000PF K 2012	
CC902	HCQK271JCA	C CHIP CERA	50V CH 270PF J 2012	
CC903	HCQK271JCA	C CHIP CERA	50V CH 270PF J 2012	
CC904	HCQK271JCA	C CHIP CERA	50V CH 270PF J 2012	
JC701	HRFT000-CA	R CHIP	1/10 0 OHM 2012	
JC702	HRFT000-CA	R CHIP	1/10 0 OHM 2012	
JC703	HRFT000-CA	R CHIP	1/10 0 OHM 2012	
JC704	HRFT000-CA	R CHIP	1/10 0 OHM 2012	
RC105	HRFT153JCA	R CHIP	1/10 15K OHM J 2012	
RC150	HRFT153JCA	R CHIP	1/10 15K OHM J 2012	
RC151	HRFT104JCA	R CHIP	1/10 100K OHM J 2012	
RC154	HRFT473JCA	R CHIP	1/10 47K OHM J 2012	
RC156	HRFT473JCA	R CHIP	1/10 47K OHM J 2012	
RC223	HRFT224JCA	R CHIP	1/10 220K OHM J 2012	
RC224	HRFT224JCA	R CHIP	1/10 220K OHM J 2012	
RC225	HRFT392JCA	R CHIP	1/10 3.9K OHM J 2012	
RC226	HRFT101JCA	R CHIP	1/10 100 OHM J 2012	
RC228	HRFT103JCA	R CHIP	1/10 10K OHM J 2012	
RC229	HRFT750JCA	R CHIP	1/10 75 OHM J 2012	
RC451	HRFT153JCA	R CHIP	1/10 15K OHM J 2012	
RC452	HRFT113JCA	R CHIP	1/10 11K OHM J 2012	
RC453	HRFT103JCA	R CHIP	1/10 10K OHM J 2012	
RC454	HRFT102JCA	R CHIP	1/10 1K OHM J 2012	
RC455	HRFT331JCA	R CHIP	1/10 330 OHM J 2012	
RC503	HRFT752JCA	R CHIP	1/10 7.5K OHM J 2012	
RC508	HRFT102JCA	R CHIP	1/10 1K OHM J 2012	
RC509	HRFT102JCA	R CHIP	1/10 1K OHM J 2012	
RC510	HRFT561JCA	R CHIP	1/10 560 OHM J 2012	
RC511	HRFT822JCA	R CHIP	1/10 8.2K OHM J 2012	
RC525	HRFT102JCA	R CHIP	1/10 1K OHM J 2012	
RC526	HRFT102JCA	R CHIP	1/10 1K OHM J 2012	
RC530	HRFT561JCA	R CHIP	1/10 560 OHM J 2012	
RC531	HRFT561JCA	R CHIP	1/10 560 OHM J 2012	
RC533	HRFT390JCA	R CHIP	1/10 39 OHM J 2012	
RC541	HRFT682JCA	R CHIP	1/10 6.8K OHM J 2012	
RC542	HRFT332JCA	R CHIP	1/10 3.3K OHM J 2012	
RC548	HRFT824JCA	R CHIP	1/10 820K OHM J 2012	
RC551	HRFT121JCA	R CHIP	1/10 120 OHM J 2012	
RC556	HRFT000-CA	R CHIP	1/10 0 OHM 2012	
RC557	HRFT182JCA	R CHIP	1/10 1.8K OHM J 2012	
RC558	HRFT103JCA	R CHIP	1/10 10K OHM J 2012	
RC559	HRFT331JCA	R CHIP	1/10 330 OHM J 2012	
RC561	HRFT561JCA	R CHIP	1/10 560 OHM J 2012	
RC562	HRFT914JCA	R CHIP	1/10 910KOHM J 2012	
RC565	HRFT123JCA	R CHIP	1/10 12K OHM J 2012	
RC566	HRFT123JCA	R CHIP	1/10 12K OHM J 2012	
RC567	HRFT103JCA	R CHIP	1/10 10K OHM J 2012	
RC568	HRFT472FCA	R CHIP	1/10 4.7K OHM F 2012	
RC570	HRFT103JCA	R CHIP	1/10 10K OHM J 2012	
RC572	HRFT223JCA	R CHIP	1/10 22K OHM J 2012	
RC573	HRFT102JCA	R CHIP	1/10 1K OHM J 2012	
RC576	HRFT000-CA	R CHIP	1/10 0 OHM 2012	
RC577	HRFT201JCA	R CHIP	1/10 200 OHM J 2012	
RC629	HRFT102JCA	R CHIP	1/10 1K OHM J 2012	
RC630	HRFT104JCA	R CHIP	1/10 100K OHM J 2012	

LOC	PART CODE	PART NAME	DESCRIPTION	REMARK
RC655	HRFT162JCA	R CHIP	1/10 1.6K OHM J 2012	
RC701	HRFT220JCA	R CHIP	1/10 22 OHM J 2012	
RC704	HRFT102JCA	R CHIP	1/10 1K OHM J 2012	
RC705	HRFT472JCA	R CHIP	1/10 4.7K OHM J 2012	
RC706	HRFT472JCA	R CHIP	1/10 4.7K OHM J 2012	
RC707	HRFT102JCA	R CHIP	1/10 1K OHM J 2012	
RC731	HRFT103JCA	R CHIP	1/10 10K OHM J 2012	
RC732	HRFT132JCA	R CHIP	1/10 1.3K OHM J 2012	
RC733	HRFT132JCA	R CHIP	1/10 1.3K OHM J 2012	
RC734	HRFT132JCA	R CHIP	1/10 1.3K OHM J 2012	
RC735	HRFT102JCA	R CHIP	1/10 1K OHM J 2012	
RC736	HRFT103JCA	R CHIP	1/10 10K OHM J 2012	
RC737	HRFT103JCA	R CHIP	1/10 10K OHM J 2012	
RC738	HRFT471JCA	R CHIP	1/10 470 OHM J 2012	
RC750	HRFT472JCA	R CHIP	1/10 4.7K OHM J 2012	
RC751	HRFT471JCA	R CHIP	1/10 470 OHM J 2012	
RC752	HRFT471JCA	R CHIP	1/10 470 OHM J 2012	
RC755	HRFT102JCA	R CHIP	1/10 1K OHM J 2012	
RC756	HRFT102JCA	R CHIP	1/10 1K OHM J 2012	
RC770	HRFT103JCA	R CHIP	1/10 10K OHM J 2012	
RC775	HRFT472JCA	R CHIP	1/10 4.7K OHM J 2012	
RC776	HRFT472JCA	R CHIP	1/10 4.7K OHM J 2012	
RC778	HRFT103JCA	R CHIP	1/10 10K OHM J 2012	
RC781	HRFT102JCA	R CHIP	1/10 1K OHM J 2012	
RC782	HRFT331JCA	R CHIP	1/10 330 OHM J 2012	
RC783	HRFT472JCA	R CHIP	1/10 4.7K OHM J 2012	
RC784	HRFT514JCA	R CHIP	1/10 510K OHM J 2012	
RC786	HRFT102JCA	R CHIP	1/10 1K OHM J 2012	
RC787	HRFT472JCA	R CHIP	1/10 4.7K OHM J 2012	
RC788	HRFT472JCA	R CHIP	1/10 4.7K OHM J 2012	
RC791	HRFT102JCA	R CHIP	1/10 1K OHM J 2012	
RC792	HRFT102JCA	R CHIP	1/10 1K OHM J 2012	
RC793	HRFT102JCA	R CHIP	1/10 1K OHM J 2012	
RC794	HRFT102JCA	R CHIP	1/10 1K OHM J 2012	
RC799	HRFT103JCA	R CHIP	1/10 10K OHM J 2012	
RC813	HRFT363JCA	R CHIP	1/10 36K OHM J 2012	
RC862	HRFT363JCA	R CHIP	1/10 36K OHM J 2012	
RC913	HRFT121JCA	R CHIP	1/10 120 OHM J 2012	
RC914	HRFT121JCA	R CHIP	1/10 120 OHM J 2012	
RC915	HRFT121JCA	R CHIP	1/10 120 OHM J 2012	
RC917	HRFT241JCA	R CHIP	1/10 240 OHM J 2012	
RC918	HRFT241JCA	R CHIP	1/10 240 OHM J 2012	
RC919	HRFT241JCA	R CHIP	1/10 240 OHM J 2012	
RC923	HRFT471JCA	R CHIP	1/10 470 OHM J 2012	
RC924	HRFT471JCA	R CHIP	1/10 470 OHM J 2012	
RC925	HRFT471JCA	R CHIP	1/10 470 OHM J 2012	
ZZ200	PTMPJ0H488	PCB MAIN (RHU) AS	DTQ-14V1FCN	
C105	CEXF1C471V	C ELECTRO	16V RSS 470MF (10X12.5)TP	
C310	CEXF1E102V	C ELECTRO	25V RSS 1000MF (13X20) TP	

LOC	PART CODE	PART NAME	DESCRIPTION	REMARK
C410	CEXF2E100V	C ELECTRO	250V RSS 10MF (10X20) TP	
C414	CEXF1V471V	C ELECTRO	35V RSS 470MF (10X20) TP	
C415	CEXF1C102V	C ELECTRO	16V RSS 1000MF (10X20) TP	
C502	CEXF1C102V	C ELECTRO	16V RSS 1000MF (10X20) TP	
C510	CEXF1C471V	C ELECTRO	16V RSS 470MF (10X12.5)TP	
C514	CEXF1C471V	C ELECTRO	16V RSS 470MF (10X12.5)TP	
C602	CEXF1C102V	C ELECTRO	16V RSS 1000MF (10X20) TP	
C646	CEXF1C471V	C ELECTRO	16V RSS 470MF (10X12.5)TP	
C812	CEXF1C102V	C ELECTRO	16V RSS 1000MF (10X20) TP	
C813	CCXB3A221K	C CERA	1KV B 220PF K (TAPPING)	
C814	CEXF2C101V	C ELECTRO	160V RSS 100MF (16X25) TP	
C820	CEXF2C101V	C ELECTRO	160V RSS 100MF (16X25) TP	
C912	CCXB3D102K	C CERA	2KV B 1000PF K (TAPPING)	
ZZ200	PTMPJBH488	PCB MAIN M-10 AS	DTQ-14V1FCN	
10	2TM18006BE	TAPE MASKING	6.2X500	
D802	D1N4937G--	DIODE	1N4937G (TAPPING)	
D807	DRGP15J---	DIODE	RGP15J	
D813	D1N4937G--	DIODE	1N4937G (TAPPING)	
D824	DZY160----	DIODE ZENER	ZY160	
E001	4856310300	EYE LET	BSR T0.2 (R1.6)	
E002	4856310300	EYE LET	BSR T0.2 (R1.6)	
E003	4856310300	EYE LET	BSR T0.2 (R1.6)	
E004	4856310300	EYE LET	BSR T0.2 (R1.6)	
E005	4856310300	EYE LET	BSR T0.2 (R1.6)	
E006	4856310300	EYE LET	BSR T0.2 (R1.6)	
E007	4856310300	EYE LET	BSR T0.2 (R1.6)	
E008	4856310300	EYE LET	BSR T0.2 (R1.6)	
E009	4856310300	EYE LET	BSR T0.2 (R1.6)	
E012	4856310300	EYE LET	BSR T0.2 (R1.6)	
E013	4856310300	EYE LET	BSR T0.2 (R1.6)	
E014	4856310300	EYE LET	BSR T0.2 (R1.6)	
E016	4856310300	EYE LET	BSR T0.2 (R1.6)	
E017	4856310300	EYE LET	BSR T0.2 (R1.6)	
E018	4856310300	EYE LET	BSR T0.2 (R1.6)	
E019	4856310300	EYE LET	BSR T0.2 (R1.6)	
E020	4856310300	EYE LET	BSR T0.2 (R1.6)	
E021	4856310300	EYE LET	BSR T0.2 (R1.6)	
E024	4856310300	EYE LET	BSR T0.2 (R1.6)	
E025	4856310300	EYE LET	BSR T0.2 (R1.6)	
E026	4856310300	EYE LET	BSR T0.2 (R1.6)	
E027	4856310300	EYE LET	BSR T0.2 (R1.6)	
E028	4856310300	EYE LET	BSR T0.2 (R1.6)	
E029	4856310300	EYE LET	BSR T0.2 (R1.6)	
E030	4856310300	EYE LET	BSR T0.2 (R1.6)	
E031	4856310300	EYE LET	BSR T0.2 (R1.6)	
E100	4856310600	EYE LET	BSR T0.2 (R2.3)	
E101	4856310600	EYE LET	BSR T0.2 (R2.3)	
E102	4856310600	EYE LET	BSR T0.2 (R2.3)	
E103	4856310600	EYE LET	BSR T0.2 (R2.3)	

ELECTRICAL PARTS LIST

LOC	PART CODE	PART NAME	DESCRIPTION	REMARK
E104	4856310600	EYE LET	BSR T0.2 (R2.3)	
E105	4856310600	EYE LET	BSR T0.2 (R2.3)	
E106	4856310600	EYE LET	BSR T0.2 (R2.3)	
E107	4856310600	EYE LET	BSR T0.2 (R2.3)	
E108	4856310600	EYE LET	BSR T0.2 (R2.3)	
E109	4856310600	EYE LET	BSR T0.2 (R2.3)	
E110	4856310600	EYE LET	BSR T0.2 (R2.3)	
E111	4856310600	EYE LET	BSR T0.2 (R2.3)	
E114	4856310600	EYE LET	BSR T0.2 (R2.3)	
E115	4856310600	EYE LET	BSR T0.2 (R2.3)	
E116	4856310600	EYE LET	BSR T0.2 (R2.3)	
E117	4856310600	EYE LET	BSR T0.2 (R2.3)	
L807	5MC0000100	COIL BEAD	HC-3550	
L811	5MC0000100	COIL BEAD	HC-3550	
L841	5MC0000100	COIL BEAD	HC-3550	
P601	485923162S	CONN WAFER	YW025-03 (STICK)	
P801A	4857417500	TERM PIN	DA-IB0214(D2.3/DY PIN)	
P801B	4857417500	TERM PIN	DA-IB0214(D2.3/DY PIN)	
R601	RF01Z688K-	R FUSIBLE	1W 0.68 OHM K (TAPPING)	
R814	RS02Z828JS	R M-OXIDE FILM	2W 0.82 OHM J SMALL	
ZZ200	PTMPJRH488	PCB MAIN RADIAL AS	DTQ-14V1FCN	
C101	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP	
C102	CEXF1C101V	C ELECTRO	16V RSS 100MF (6.3X11) TP	
C103	CEXF1H339V	C ELECTRO	50V RSS 3.3MF (5X11) TP	
C104	CMXM2A333J	C MYLAR	100V 0.033MF J (TP)	
C106	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP	
C107	CEXF1H228V	C ELECTRO	50V RSS 0.22MF (5X11) TP	
C212	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
C235	CEXD1H229F	C ELECTRO	50V RND 2.2MF (5X11) TP	
C301	CMXM2A103J	C MYLAR	100V 0.01MF J (TP)	
C302	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5X11) TP	
C303	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
C305	CEXF1H101V	C ELECTRO	50V RSS 100MF (8X11.5) TP	
C307	CXSL2H100D	C CERA	500V SL 10PF D (TAPPING)	
C308	CMXM2A104J	C MYLAR	100V 0.1MF J (TP)	
C311	CEXD1H229Q	C ELECTRO	50V RT 2.2MF (6.3X11) TP	
C401	CCXB2H102K	C CERA	500V B 1000PF K (TAPPING)	
C405	CEXF2C109V	C ELECTRO	160V RSS 1MF (6.3X11) TP	
C408	CEXF1C470V	C ELECTRO	16V RSS 47MF (5X11) TP	
C411	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
C412	CCXB2H102K	C CERA	500V B 1000PF K (TAPPING)	
C413	CCXB2H102K	C CERA	500V B 1000PF K (TAPPING)	
C416	CCXB2H102K	C CERA	500V B 1000PF K (TAPPING)	
C417	CCXB2H102K	C CERA	500V B 1000PF K (TAPPING)	
C418	CMXM2A104J	C MYLAR	100V 0.1MF J (TP)	
C451	CEXF1C101V	C ELECTRO	16V RSS 100MF (6.3X11) TP	
C452	CEXF1C221V	C ELECTRO	16V RSS 220MF (8X11.5) TP	
C501	CMXL1H105J	C MYLAR	50V MEU 1MF J	
C507	CMXM2A224J	C MYLAR	100V 0.22MF J	
C508	CMXM2A224J	C MYLAR	100V 0.22MF J	
C509	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP	
C511	CMXM2A333J	C MYLAR	100V 0.033MF J (TP)	
C512	CEXF1H108V	C ELECTRO	50V RSS 0.1MF (5X11) TP	
C513	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP	
C516	CEXF1H229V	C ELECTRO	50V RSS 2.2MF (5X11) TP	
C517	CMXM2A473J	C MYLAR	100V 0.047MF J (TP)	
C518	CEXF1H478V	C ELECTRO	50V RSS 0.47MF (5X11) TP	
C519	CEXF1H478V	C ELECTRO	50V RSS 0.47MF (5X11) TP	
C520	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP	
C525	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP	
C555	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP	
C575	CEXF1E101V	C ELECTRO	25V RSS 100MF (6.3X11) TP	
C601	CMXM2A103J	C MYLAR	100V 0.01MF J (TP)	
C603	CEXF1H108V	C ELECTRO	50V RSS 0.1MF (5X11) TP	
C604	CEXF1H470V	C ELECTRO	50V RSS 47MF (6.3X11) TP	
C634	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5X11) TP	
C701	CEXF1H470V	C ELECTRO	50V RSS 47MF (6.3X11) TP	
C702	CEXF1C221V	C ELECTRO	16V RSS 220MF (8X11.5) TP	
C703	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP	
C704	CEXF1H229V	C ELECTRO	50V RSS 2.2MF (5X11) TP	
C705	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP	
C780	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP	
C807	CMXM2A103J	C MYLAR	100V 0.01MF J (TP)	
C809	CMXM2A102J	C MYLAR	100V 1000PF J (TP)	
C810	CCXB2H222K	C CERA	500V B 2200PF K (TAPPING)	⚠
C811	CCXB2H222K	C CERA	500V B 2200PF K (TAPPING)	⚠
C818	CEXF1C101V	C ELECTRO	16V RSS 100MF (6.3X11) TP	
C819	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5X11) TP	
C845	CEXF2A100V	C ELECTRO	100V RSS 10MF (6.3X11) TP	
C850	CMXM2A104J	C MYLAR	100V 0.1MF J (TP)	
C876	CEXF1C101V	C ELECTRO	16V RSS 100MF (6.3X11) TP	
F801A	4857415001	CLIP FUSE	PFC5000-0702	
F801B	4857415001	CLIP FUSE	PFC5000-0702	
L601	58CX430599	COIL CHOKE	AZ-9004Y 940K TP	
L805	58CX430599	COIL CHOKE	AZ-9004Y 940K TP	
L901	5CPX221J--	COIL PEAKING	220UH J (RADIAL)	
Q201	TKSC945CY-	TR	KSC 945C-Y (TAPPING)	
Q401	TKSC2330Y-	TR	KSC2330Y (TP)	
Q403	TKSC945CY-	TR	KSC 945C-Y (TAPPING)	
Q404	TKSC945CY-	TR	KSC 945C-Y (TAPPING)	
Q570	TKTA1266Y-	TR	KTA1266Y (TP)	
Q575	TKTA1275Y-	TR	KTA1275Y (TP)	
Q701	TKSC945CY-	TR	KSC 945C-Y (TAPPING)	
Q702	TKSC945CY-	TR	KSC 945C-Y (TAPPING)	
Q703	TKSC945CY-	TR	KSC 945C-Y (TAPPING)	
Q704	TKTA1266Y-	TR	KTA1266Y (TP)	
Q707	TKSC945CY-	TR	KSC 945C-Y (TAPPING)	
Q804	TKTA1275Y-	TR	KTA1275Y (TP)	

LOC	PART CODE	PART NAME	DESCRIPTION	REMARK
Q805	TKTC3205Y-	TR	KTC3205Y (TP)	
Q851	TKSC945CY-	TR	KSC 945C-Y (TAPPING)	
R301	RN01B471JS	R METAL FILM	1W 470 OHM J SMALL	
R302	RN01B471JS	R METAL FILM	1W 470 OHM J SMALL	
R303	RN01B129JS	R METAL FILM	1W 1.2 OHM J SMALL	
R305	RN01B331JS	R METAL FILM	1W 330 OHM J SMALL	
R403	RN01B562JS	R METAL FILM	1W 5.6K OHM J SMALL	
R411	RN01B229JS	R METAL FILM	1W 2.2 OHM J SMALL	
R412	RN01B369JS	R METAL FILM	1W 3.6 OHM J SMALL	
R413	RN01B229JS	R METAL FILM	1W 2.2 OHM J SMALL	
R414	RN01B229JS	R METAL FILM	1W 2.2 OHM J SMALL	
R418	RN02B150JS	R METAL FILM	2W 15 OHM J SMALL	
R420	RN02B620JS	R METAL FILM	2W 62 OHM J SMALL	
R817	RN01B471JS	R METAL FILM	1W 470 OHM J SMALL	
R913	RN02B123JS	R METAL FILM	2W 12K OHM J SMALL	
R914	RN02B123JS	R METAL FILM	2W 12K OHM J SMALL	
R915	RN02B123JS	R METAL FILM	2W 12K OHM J SMALL	
SW701	5S50101090	SW TACT	THVH472GCA	
SW702	5S50101090	SW TACT	THVH472GCA	
SW703	5S50101090	SW TACT	THVH472GCA	
SW704	5S50101090	SW TACT	THVH472GCA	
SW705	5S50101090	SW TACT	THVH472GCA	
SW706	5S50101090	SW TACT	THVH472GCA	
X502	5XEX3R579C	CRYSTAL QUARTZ	HC-49U 3.579545M (TP)	
ZZ200	PTMPJAH488	PCB MAIN AXIAL AS	DTQ-14V1FCN	
10	2TM14006LB	TAPE MASKING	3M #232 6.0X2000M	
20	2TM10006LB	TAPE MASKING	3M #232-MAP-C 6.2X2000M	
A001	4859813791	PCB MAIN	246X246 S1B	
D101	DUZ33B----	DIODE ZENER	UZ-33B	
D221	D1N4148---	DIODE	1N4148 (TAPPING)	
D301	D1N4004S--	DIODE	1N4004S	
D311	DBZX55C62-	DIODE ZENER	BZX55C-62	
D312	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
D401	D1N4937G--	DIODE	1N4937G (TAPPING)	
D405	D1N4937G--	DIODE	1N4937G (TAPPING)	
D406	D1N4937G--	DIODE	1N4937G (TAPPING)	
D407	D1N4937G--	DIODE	1N4937G (TAPPING)	
D408	D1N4937G--	DIODE	1N4937G (TAPPING)	
D409	D1N4148---	DIODE	1N4148 (TAPPING)	
D501	D1N4148---	DIODE	1N4148 (TAPPING)	
D502	D1N4148---	DIODE	1N4148 (TAPPING)	
D503	DUZ9R1BM--	DIODE ZENER	UZ-9.1BM	
D504	D1N4148---	DIODE	1N4148 (TAPPING)	
D505	DUZ9R1BM--	DIODE ZENER	UZ-9.1BM	
D541	D1N4148---	DIODE	1N4148 (TAPPING)	
D571	D1N4148---	DIODE	1N4148 (TAPPING)	
D572	D1N4148---	DIODE	1N4148 (TAPPING)	
D573	D1N4148---	DIODE	1N4148 (TAPPING)	
D574	D1N4148---	DIODE	1N4148 (TAPPING)	

LOC	PART CODE	PART NAME	DESCRIPTION	REMARK
D701	D1N4148---	DIODE	1N4148 (TAPPING)	
D704	DUZ3R9B---	DIODE ZENER	UZ-3.9B	
D790	D1N4148---	DIODE	1N4148 (TAPPING)	
D812	DUZ5R6BM--	DIODE ZENER	UZ-5.6BM	
D841	D1N4937G--	DIODE	1N4937G (TAPPING)	
D851	DUZ8R2BM--	DIODE ZENER	UZ-8.2B	
J001	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J002	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J009	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J025	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J050	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J057	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J113	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J114	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J501	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J511	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J533	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J551	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J601	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J602	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J705	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J709	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J711	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J717	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J719	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J722	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J727	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J731	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J735	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J747	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J748	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J750	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J758	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J801	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J811	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J888	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J922	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J923	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J925	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J926	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J927	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J928	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J933	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J938	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J939	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J941	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J942	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J946	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J950	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	

ELECTRICAL PARTS LIST

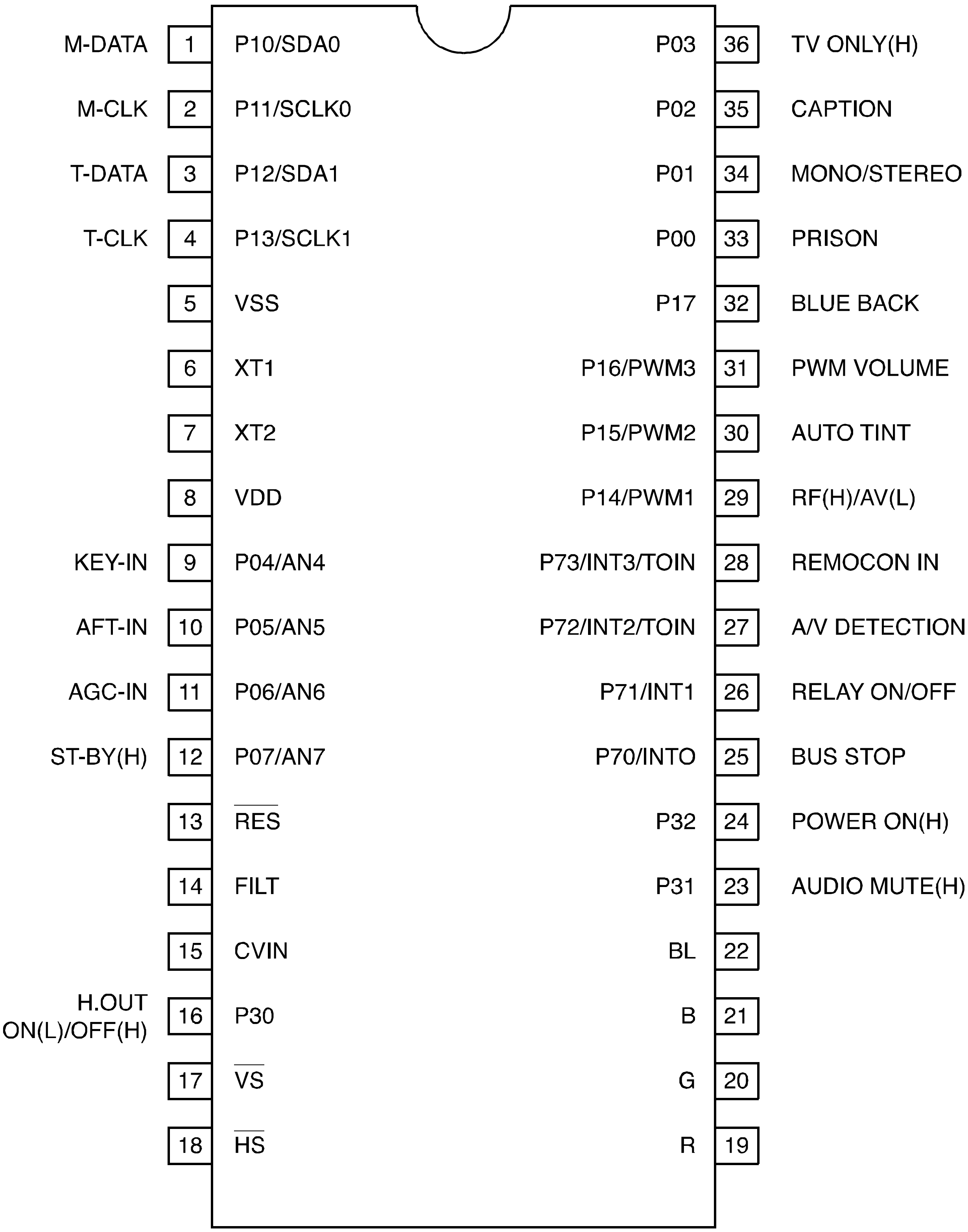
LOC	PART CODE	PART NAME	DESCRIPTION	REMARK
J953	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J954	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J955	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J956	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J957	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J959	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J963	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J964	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J965	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J966	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J967	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J970	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J977	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
L112	5CPZ330K02	COIL PEAKING	33UH K (AXIAL 3.5MM)	
L502	5CPZ470K04	COIL PEAKING	47UH 10.5MM K (LAL04TB)	
L533	5CPZ150K02	COIL PEAKING	15UH K (AXIAL 3.5MM)	
L701	5CPZ220K02	COIL PEAKING	22UH K (AXIAL 3.5MM)	
R165	RD-4Z472J-	R CARBON FILM	1/4 4.7K OHM J	
R227	RD-4Z102J-	R CARBON FILM	1/4 1K OHM J	
R351	RD-4Z682J-	R CARBON FILM	1/4 6.8K OHM J	
R352	RN-4Z1603F	R METAL FILM	1/4 160K OHM F	
R353	RN-4Z1502F	R METAL FILM	1/4 15K OHM F	
R359	RD-4Z273J-	R CARBON FILM	1/4 27K OHM J	
R360	RD-4Z333J-	R CARBON FILM	1/4 33K OHM J	
R361	RD-4Z222J-	R CARBON FILM	1/4 2.2K OHM J	
R362	RD-4Z113J-	R CARBON FILM	1/4 11K OHM J	
R401	RD-4Z472J-	R CARBON FILM	1/4 4.7K OHM J	
R405	RD-2Z751J-	R CARBON FILM	1/2 750 OHM J	
R416	RD-2Z121J-	R CARBON FILM	1/2 120 OHM J	
R417	RD-4Z302J-	R CARBON FILM	1/4 3K OHM J	
R501	RD-2Z151J-	R CARBON FILM	1/2 150 OHM J	
R502	RD-2Z151J-	R CARBON FILM	1/2 150 OHM J	
R554	RD-4Z102J-	R CARBON FILM	1/4 1K OHM J	
R569	RD-4Z152J-	R CARBON FILM	1/4 1.5K OHM J	
R570	RD-4Z302J-	R CARBON FILM	1/4 3K OHM J	
R579	RD-4Z102J-	R CARBON FILM	1/4 1K OHM J	
R591	RD-4Z331J-	R CARBON FILM	1/4 330 OHM J	
R592	RD-4Z331J-	R CARBON FILM	1/4 330 OHM J	
R593	RD-4Z331J-	R CARBON FILM	1/4 330 OHM J	
R602	RD-2Z271J-	R CARBON FILM	1/2 270 OHM J	
R604	RD-4Z682J-	R CARBON FILM	1/4 6.8K OHM J	
R703	RD-4Z101J-	R CARBON FILM	1/4 100 OHM J	
R709	RD-4Z392J-	R CARBON FILM	1/4 3.9K OHM J	
R743	RD-4Z472J-	R CARBON FILM	1/4 4.7K OHM J	
R744	RD-4Z242J-	R CARBON FILM	1/4 2.4K OHM J	
R746	RD-4Z752J-	R CARBON FILM	1/4 7.5K OHM J	
R747	RD-4Z243J-	R CARBON FILM	1/4 24K OHM J	
R763	RD-4Z201J-	R CARBON FILM	1/4 200 OHM J	
R776	RD-4Z473J-	R CARBON FILM	1/4 47K OHM J	
R777	RD-4Z102J-	R CARBON FILM	1/4 1K OHM J	
R780	RD-4Z471J-	R CARBON FILM	1/4 470 OHM J	
R789	RD-4Z102J-	R CARBON FILM	1/4 1K OHM J	
R790	RD-4Z102J-	R CARBON FILM	1/4 1K OHM J	
R796	RD-4Z472J-	R CARBON FILM	1/4 4.7K OHM J	
R802	RD-4Z205J-	R CARBON FILM	1/4 2M OHM J	
R804	RD-4Z201J-	R CARBON FILM	1/4 200 OHM J	
R805	RD-4Z152J-	R CARBON FILM	1/4 1.5K OHM J	
R806	RD-4Z562J-	R CARBON FILM	1/4 5.6K OHM J	
R808	RD-4Z102J-	R CARBON FILM	1/4 1K OHM J	
R809	RD-4Z102J-	R CARBON FILM	1/4 1K OHM J	
R810	RD-4Z102J-	R CARBON FILM	1/4 1K OHM J	
R818	RD-4Z135J-	R CARBON FILM	1/4 1.3M OHM J	
R819	RD-4Z561J-	R CARBON FILM	1/4 560 OHM J	
R820	RD-4Z392J-	R CARBON FILM	1/4 3.9K OHM J	
R822	RD-4Z363J-	R CARBON FILM	1/4 36K OHM J	
R835	RD-4Z114J-	R CARBON FILM	1/4 110K OHM J	
R851	RD-4Z472J-	R CARBON FILM	1/4 4.7K OHM J	
R854	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
R855	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
R888	RC-2Z565KP	R CARBON COMP	1/2 5.6M OHM K	⚠
R901	RD-4Z474J-	R CARBON FILM	1/4 470K OHM J	
R910	RD-2Z332J-	R CARBON FILM	1/2 3.3K OHM J	
R911	RD-2Z332J-	R CARBON FILM	1/2 3.3K OHM J	
R912	RD-2Z332J-	R CARBON FILM	1/2 3.3K OHM J	

DAEWOO

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U-COM(I701)



X TAL:32.768 KHz

1. Abstract.

This specification is 1-Tuner Mono Model for North/South America, CCD 1-Chip MICOM LC863228A.
It is developing software specification for tuning only NTSC

2. H/W Outline.

1) ROM : 28,672 x 8bits.tsc
: 15,872 x 8 bits for CGROM.

2) RAM : 512 x 8bits.
: 352 x 9bits.(for CRT Display)

3) OSD Function.

- Screen Display. : 36 characters x 16 lines.(by software)
- RAM : 352 words. (9 bits per word)
  Display area. : 36 words. x 8 lines.
  1st control area. : 8 words. x 8 lines.
- Characters.
  244 patterns programmable.
  Up to 244 kinds of 16 x 17 dot characters.
  Up to 244 kinds of 8 x 9 dot characters.
  or
  Up to 244 kinds of 16 x 32 dot characters used 16K bytes.
- Various characters attributes.
  Character colors. : 16 colors
  Character background colors. : 16 colors
  Fringe / shadow colors. : 16 colors
  Full screen colors. : 16 colors
  Rounding.
  Underline.
  Italic character.(slanting)
- Attribute can be changed without spacing.
- Vertical display start line number can be set for each row independently.(Row can be overlapped.)
- Horizontal display start position can be set for each row independently.
- Different display modes can be set for each row independently.
  Caption and Text mode/ OSD mode 1/ OSD mode 2(Quarter size)/ Simplified graphic mode.
- Ten character sizes.
  Horiz. x Vert. = (1x1),(1x2),(2x2),(2x4),(0.5x0.5)
  (1.5x1),(1.5x2),(3x2),(3x4),(0.75x0.5)
- Shuttering and scrolling on each row.

3. System Feature.

1) The system for TV tuning is Frequency Synthesis type.
2) Closed Captions function is interior designed.

3) On Screen Displays function is interior designed.
4) Package. : 36 PIN SDIP.
5) Tuner (Pre-scaler.) : I^2C Bus.
/PLL IC : TAU 6014-S(SIEMENS).
6) Remocon. : The IC of Transmission (MITSUBISHI M50560)
7) E^2PROM. : 24C04(I^2C Bus) ◊ Apply one byte Read/Write mode.
8) 6-Local Key. : A/D Input Control.(Power, Ch Up/Down, Vol Up/Down, Menu)
9) Option S/W : Port Input Option Check.
10) IF/V/C/D IC :DTC814(LA79814)

4. Function.

1) C. C. D. function.
- A section of C. C. D. operates FCC based specification.

2) C. C. D. controlled function.
- Closed Caption Mode. (Off<-->C1<-->C2<-->T1<-->T2<-->Off)
- CC On Mute.(Off <-->C1<-->C2<-->Off)
- Closed Caption is prior to CC On Mute.

3) Tuning Function.
- I^2C Bus.
- PLL IC Interface.
- FS 181 Channel (AIR 2-69CH, CABLE 1-125CH)
- AFT Operation(Fine Tuning) -2.5Fn+2.5MHz
- AIR/CABLE (STD, HRC, IRC). Only Cable 5,6CH is that AFT range is cover over broad-band. -2.5MHzFn+3.5MHz..
- Memorize Channels.(If a channel is broadcasting, the channel is memorized.)
- Direct Tuning(09KEY)
- Channel Up/Down.(Memorized Channels) -> The Ch Up/Down buttons on the Remocon and on the front panel are same function.
- Search Channel Up/Down.(If No-Memory or only 1CH is Memory)
- Channel Memory.(ADD/DELETE)
- Channel Review Function.
- Last Channel Memory Function.

4) OSD Function.
- In Line(Video) Mode, Things(Items) that is concerned with Air and Cable disappear in the Menu.
- Channel, AV display.
- Small & Graphic ICON Menu.
- Volume / Picture control --> I^2C Bus Control

5) The Others Function.
- Video/Audio Mute Function.
- If a Channel is no signal, after 15 minutes is Auto-Power Off Function.

- Auto Power On Function.(Power Restore function in the Special Menu)
- Heat Run Function. --- OSD White Back-Ground
- Sleep Timer.
- Wake Up Time Function.
- Off Time Function.
- Remote Reception & Control.
- Auto Tint.---------------------- (Option)
- Power Restore.
- Input(TV/Line) Controlled function. ---------------------- (Option)
- Reception.(Air/Cable : Factory Initial Condition)
- Blue Background.---(Option)
- 3-Language (North America : ENG/SPA/FRA, South America : ENG/SPA/POR).
- E^2PROM Interface (I^2C Bus Control)
- CH 6 TRAP Function.(IS-31)
- PLL IC Band Data.(Control Byte 2-->P3~P0)

VHF L : 1

VHF H : 2

CH6 TRAP : 5 (IS-31) AIR(Cable) CH 6 Only

UHF : 8

5. The Table of Option and Schedule.

Model Name	Pin	Option	Application	Reference
CN - 001N	#30	Auto Tint	O	- Low(DC_0V) : ON(Auto Tint)
				- High(DC_5V) : OFF
	#32	Bule Back	O	- Low(DC_0V) : Blue Back
				- High(DC_5V) : No Blue Back
	#33	Prison	O	- Low(DC_0V) :Normal
				- High(DC_5V) : Prison
	#34	Mono/Stereo	O	- Low(DC_0V) : Mono
				- High(DC_5V) :Stereo
	#35	Caption	X	- No Use.
				- No Use.
	#36	TV only	O	- Low(DC_0V) :TV/Video
				- High(DC_5V) :TV/Only
Tatal Sun			6	- Use. (No Use.)

6. Pin Description

PIN	Terminal	Name	Explanation	Remarks
1	P10/SDA0	ROM Data Main IC Data	6 bit input/output port Input/output can be Specified for each bit Other function. P10 IIC0 data I/O P11 IIC0 clock output. P12 IIC1 data I/O P13 IIC1 clock output.	
2	P11/SCLK0	ROM CLK Main IC CLK		
3	P12/SDA1	Tuner Data		
4	P13/SCLK1	Tuner CLK		
5	VSS	GND	GND Negative power supply.	
6	XT1	XT1	It uses 32.768KHz X-TAL. 10 pin is input terminal for crystal oscillator. 11 pin is output terminal for crystal oscillator.	
7	XT2	XT2		
8	VDD	VDD	+5V (0.5V) Positive power supply.	
9	P04/AN4	KEY-IN	Power, Ch up/down, Vol up/down, Menu	
10	P05/AN5	AFT-IN	Dc value that comes from the 10 pin of LA76810/14	
11	P06/AN6	AGC-IN	Connect this port to AGC of Tuner Default Voltage : 3.75V Variable Voltage : 3.25V, 3.5V, 4.0V	
12	P07/AN7	ST-BY(H)	Use only japan Model. This port uses when is Stand - By status Condition : Input AC Power On Power off : High (DC 5V) Output. (Red) Power on : Low (DC 0V) Output.	
13	/FES	/RES	Reset terminal. Active Low	
14	FILT	Filter	Filter terminal for PLL Output terminal	
15	CVIN	CVSB IN	Video signal input terminal	
16	P01	TV/VID	TV Mode : High Line(Video) Mode : Low	
17	/VS	/VS	Vertical synchronization signal input terminal	
18	/HS	/HS	Horizental synchronization signal input terminal	
19	R	R	Red output terminal of RGB image	
20	G	G	Green output terminal of RGB image	

PIN	Terminal	Name	Explanation
21	B	B	Blue output terminal of RGB image
22	BL	BL	Fast blanking control signal Switch TV image Signal and caption / OSD image signal Output terminal
23	P31	Audio Mute	Use only read data of LA76814/10
24	P32	Power On	Use when does power off/on Power off: Output Low(DC 0V) Power on: Output High(DC 5V)
25	P70/INT0	Bus Stop	No Use
26	P71/INT1	Relay On/Off	Relay On/Off Terminal
27	P72/INT2	A/V Detection	Detect port of Front A/V
28	P73/INT3	Remocon In	Input of Remocon Signal
29	P14/PWM1	RF(H)/AV(L)	High: RF only mode Low: RF/AV mode
30	P15/PWM2	AUTO TINT	Low (DC-0V) : On(Auto Tint) High (DC-5V) : Off
31	P16/PWM3	PWM VOLUME	Use only to control Sound of Stereo mode
32	P17	BLUE BACK	High (DC-5V) : No Blue Back Low (DC-0V) : Blue Back
33	P00	PRISON	Low (DC-0V) : Normal High (DC-5V) : Prison
34	P01	MONO/STEREO	Low (DC-0V) : Mono High (DC-5V) : Stereo
35	P02	CAPTION	No Use
36	P03	TV ONLY(H)	Low (DC-0V) : TV/Video High (DC-5V) : TV Only

Output form and existence of pull- up resistor for every port can be specified for each bit.
At port 1, Programable pull- up resistor provided when specifing either COOS or N- ch open drain output.
Port status in reset.

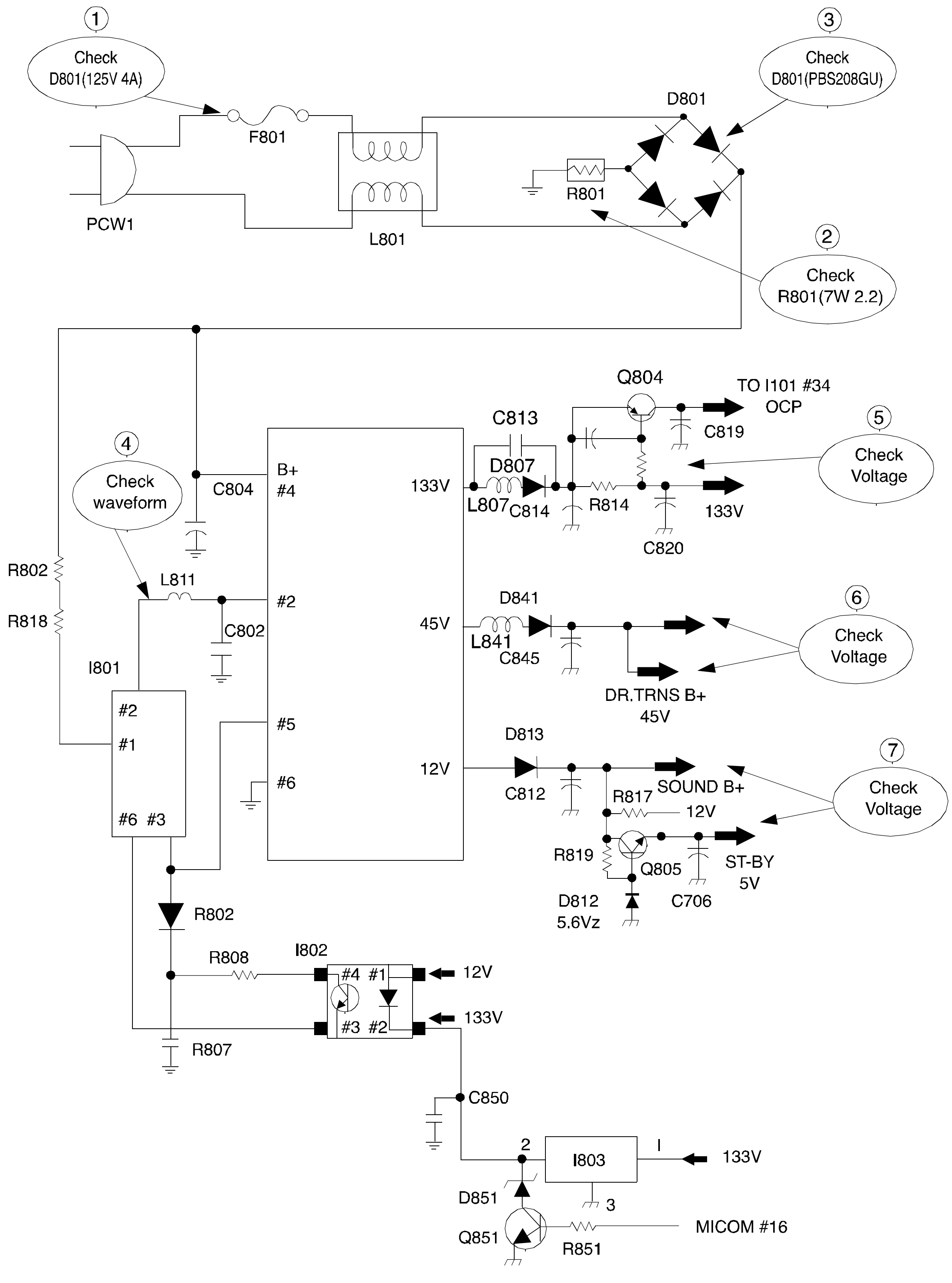
Teriminal	I/O	Pull- up resistor status at selection pull- up option.
Port 0	I	Pull- up resistor OFF, ON after reset release.
Port 1	I	Programmable pull- resistor OFF.

I101

DCT814(LA76814) : IC VIDEO PROCESSOR



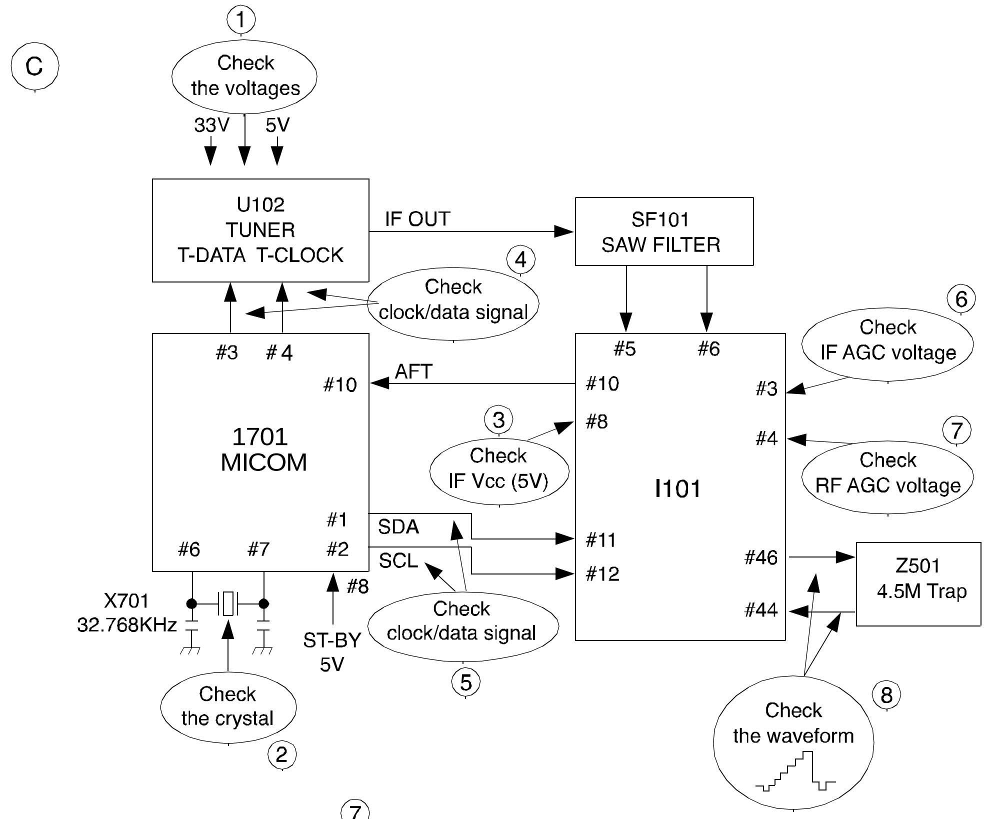
1. NO POWER

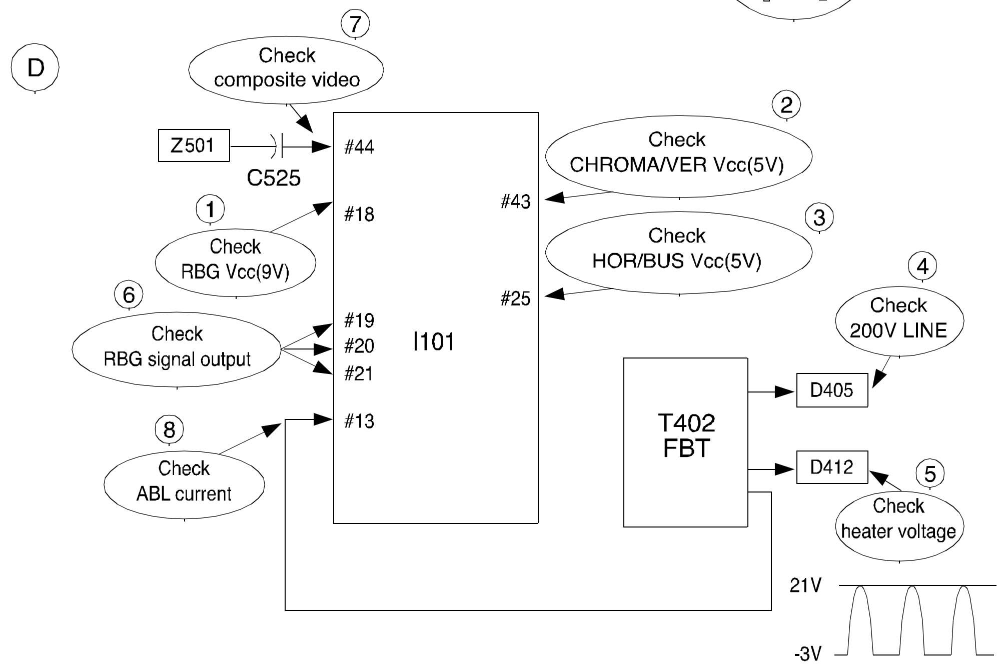


1
Check D801(125V 4A)
3
Check D801(PBS208GU)
D801
F801
PCW1
R801
L801
2
Check R801(7W 2.2)
Q804
TO I101 #34 OCP
C813
C819
5
Check Voltage
4
Check waveform
C804
B+ #4
133V
D807
L807
C814
R814
133V
C820
R802
L811
D841
6
Check Voltage
R818
#2
C802
45V
L841
C845
I801
DR.TRNS B+ 45V
#2
#1
#5
D813
7
Check Voltage
#6
12V
C812
R817
SOUND B+ 12V
#6 #3
R819
Q805
ST-BY 5V
D812 5.6Vz
C706
R802
R808
I802
#4 #1
12V
#3 #2
133V
R807
C850
2
I803
I
133V
D851
3
Q851
R851
MICOM #16

2. NO PICTURE

Check the waveform of I101 #46	NG : GO to the figure ⓒ
	OK : Go the figure ⓓ

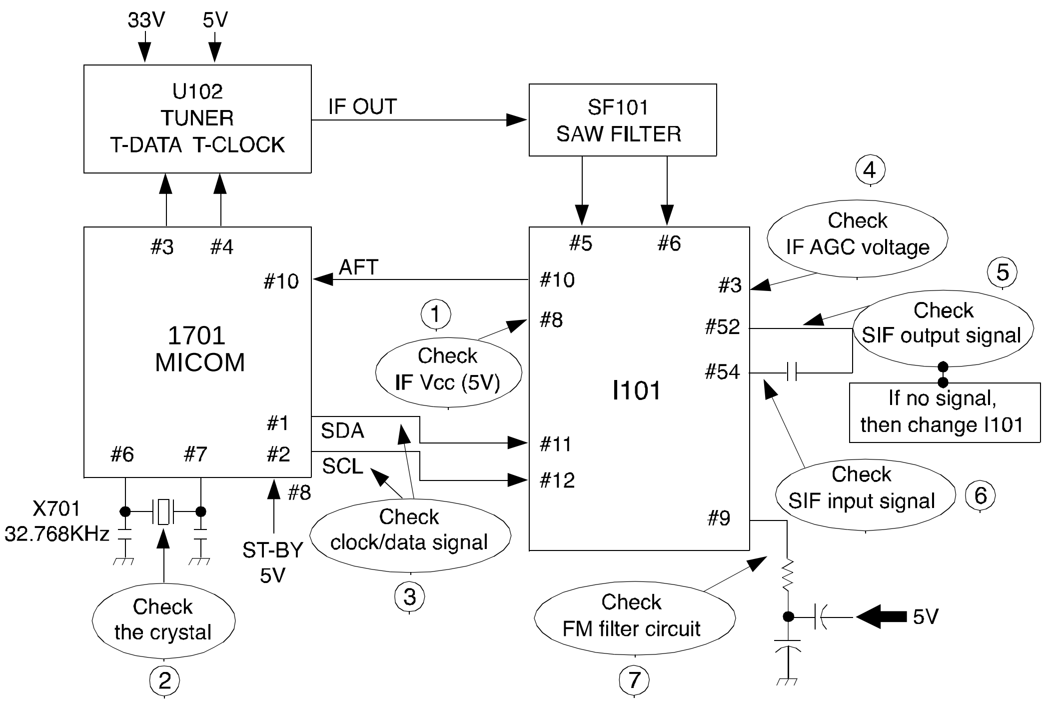




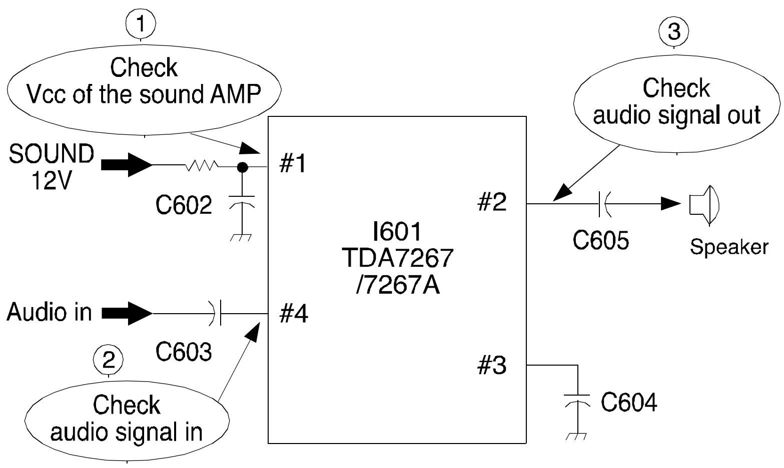
3. NO SOUND

Check audio output signal of I101 #1	NG : Go to the figure ⓔ
	OK : Go to the figure ⓕⓖ

E

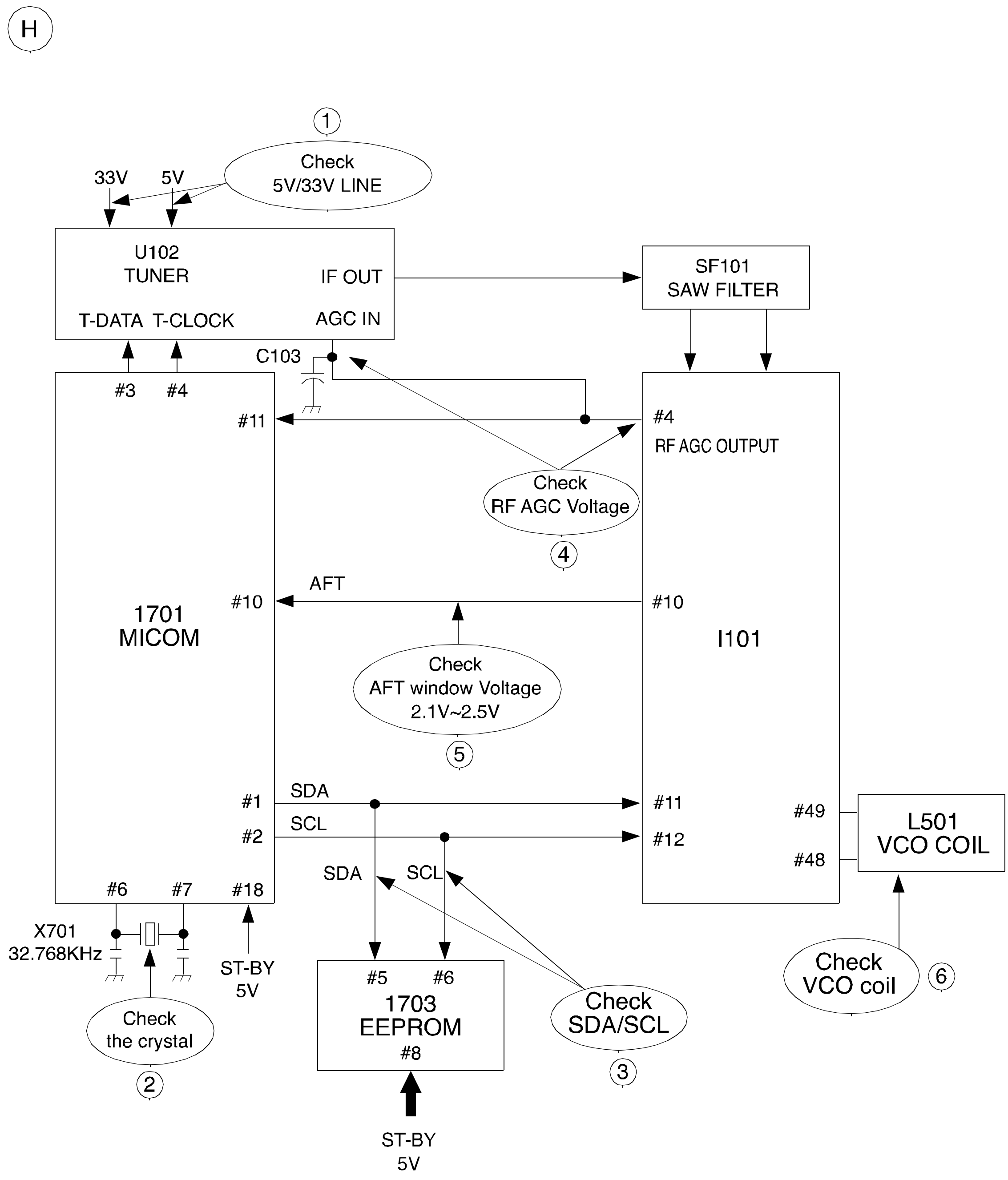


F (MONO ONLY)

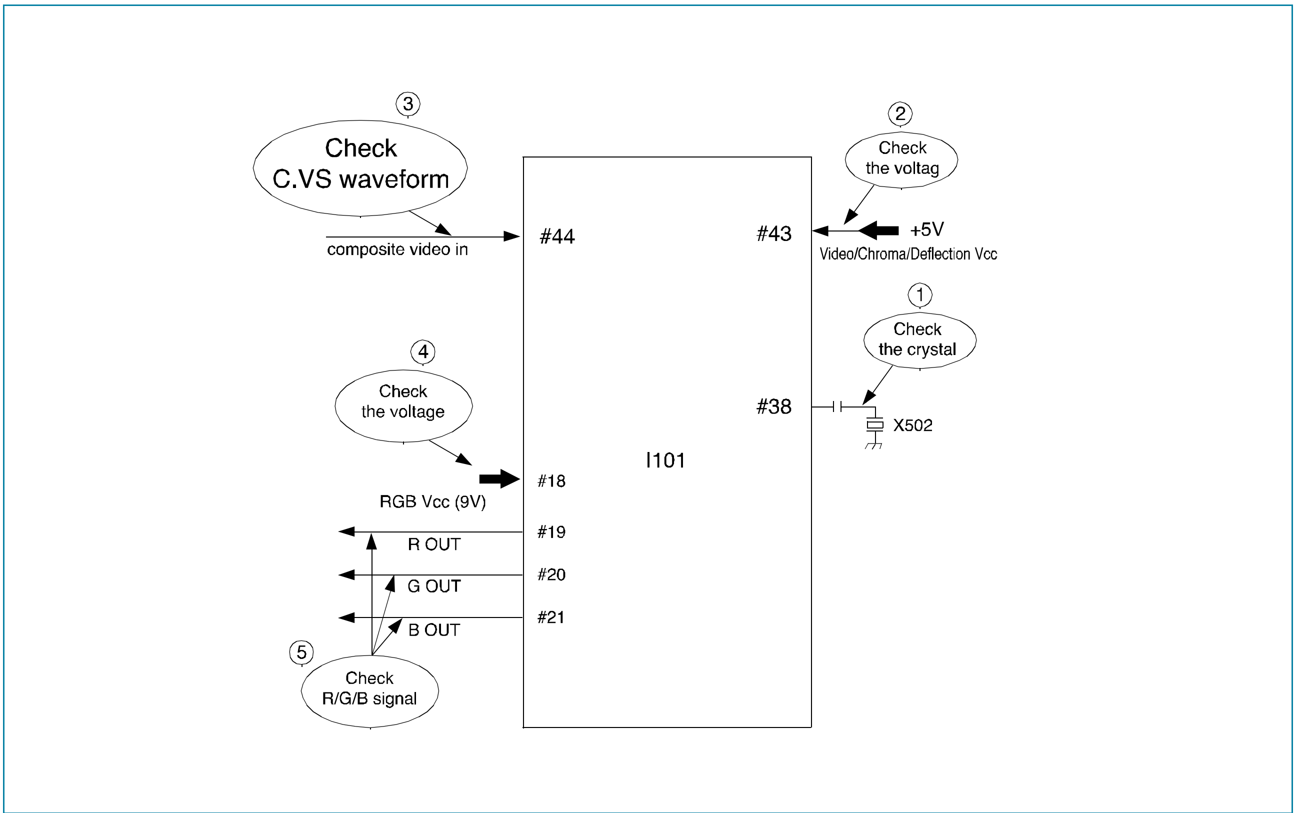


4. CH DON'T STOP

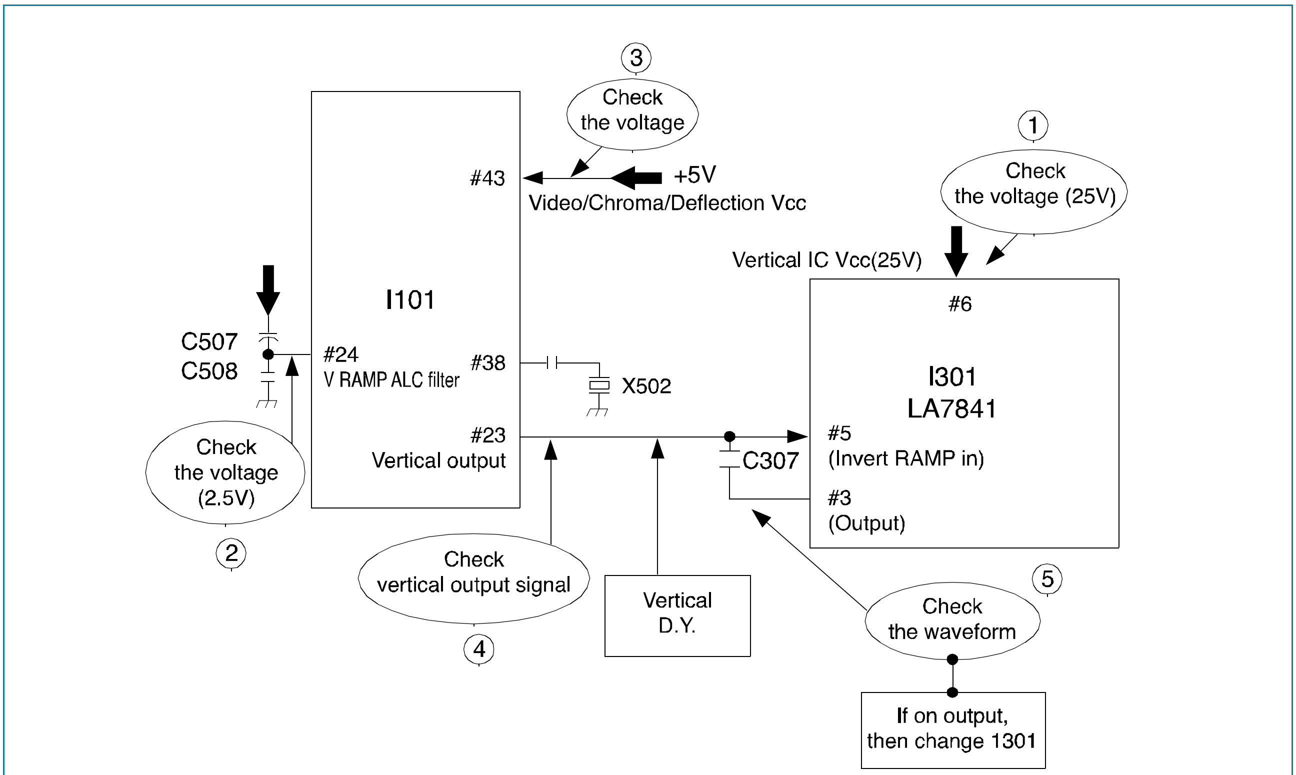
Check the input signal conditions	NG : Loss of signal or weak signal
	OK : Go to the figure (h)



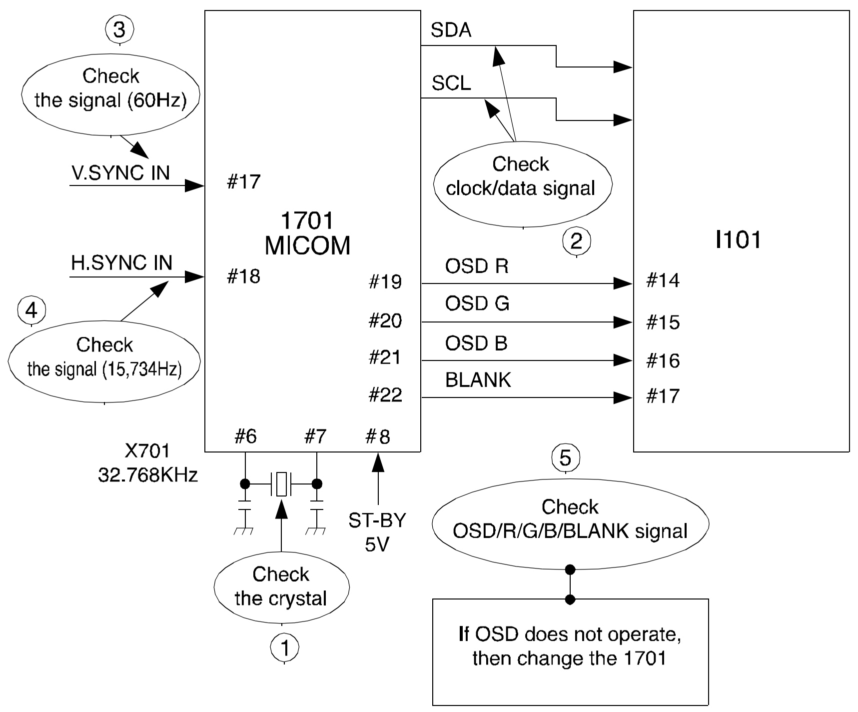
5. NO COLOR



6. NO VERTICAL DEFLECTION



7. NO ON-SCREEN DISPLAY



8. REMOTE CONTROL DOES NOT OPERATE

